

# KÖSTER

Waterproofing Systems



Complete product range

# The Green Pages

Edition 2022/2023



 MADE IN GERMANY



## Editorial



Since the foundation of KÖSTER BAUCHEMIE, 40 years ago, the statement of Johann Köster that KÖSTER waterproofing products are developed to protect building structures and the environment, has been at the forefront of our mission.

Now, more than ever, it is even more fundamental to consider the impact of our company's decisions on the environment.

The company's mission to develop and produce high-quality waterproofing systems with respect for the environment directly relates to the concept of "built to last", present in every product we manufacture.

By offering superior quality products, KÖSTER BAUCHEMIE aims to increase the lifespan of building structures and therefore reduce the need for premature replacement. This has an evident impact on the global use of resources, such as energy and building materials.

With our research, we continue to develop solutions to offer our customers the most efficient and durable systems, to effectively protect the buildings from water damage.

In the new edition of the Green Pages, we have completely revamped and updated our systems with new graphics, new descriptions, and introduced new products. This upgrade is intended to facilitate a fast recognition of the required system and to help our customers to identify all the products that compose each system.

At the same time, we also updated our webpage so that the new content of the catalog can be found online.

With best regards from Aurich,

Hugo Torres

# The fastest way to your waterproofing products – the KÖSTER distribution channel

## A one-stop-shop for product guidance and delivery service

KÖSTER systems and products stand out due to their exceptionally easy and user-friendly application. Nonetheless, technical solutions require technical explanations. That's why we offer comprehensive trainings and technical consultation in order to ensure appropriate application. Our distribution network is based on a worldwide system of experienced technical consultants who serve as your first contact for technical questions and the delivery of our products – if required, even directly to your construction site.

## How to reach your contact person

If you are not yet a KÖSTER customer, please contact our international department for more information – everything necessary will be arranged immediately. Alternatively, all relevant information and contact details of the technical consultant in charge of your area are available on the internet:

✉ [info@koster.eu](mailto:info@koster.eu)

🌐 [www.koster.eu](http://www.koster.eu)

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## 40 years of company history

Johann J. Köster began his career in 1967 in a construction chemicals company specialized in basement waterproofing. In this company he worked as Sales Manager and progressed in the hierarchy to become Managing Director.

These 15-years of accumulated experience in sales and management in the waterproofing business, were the basis for the entrepreneurial idea of founding his own company.



**1982**

Foundation of KÖSTER BAUCHEMIE GmbH and ABV Bedachung und Bautenschutz GmbH, roofing, construction of façades and halls in Aurich, Germany by Johann J. Köster.



**1987**

Foundation of HeBeKo Plastic GmbH & Co. KG, that later became the KÖSTER thermoplastic roofing and waterproofing membranes production facility.



**1988**

Relocation of KÖSTER's headquarters to Dieselstraße in Aurich, Germany.



**1992**

Construction of a new manufacturing facility for powder products in Aurich, Germany.



**1992**

Foundation of KOSTER American Corp. USA in Virginia Beach, for USA and Canada.



**2004**

Foundation of KÖSTER Bulgaria Ltd for Bulgaria



**2006**

Foundation of Beijing KÖSTER International Chemical Industry Co., Ltd., Beijing, China.



**2006**

Foundation of KÖSTER Japan Corp., Yokohama, Japan.



**2007**

Dr. Dieter Köster assumes the general directorship of the company and he is appointed Managing Director of KÖSTER BAUCHEMIE AG.



**2009**

Foundation of KÖSTER IMP Lda for Portugal, Angola and Mozambique.





In 1982, Johann Köster founded the company under the slogan „KÖSTER Abdichtungsprodukte schützen Bauten und Umwelt“ that stands for “KÖSTER Waterproofing products protect building structures and the environment”, showing that sustainability was the founder’s vision since the beginning.



**1992**

Foundation of KÖSTER Afdichtingssystemen B.V., for the Netherlands and Benelux.



**1993**

Foundation of KÖSTER YAPI KIMYASALLARI, Istanbul, Turkey.



**1995**

Enlargement of Liquid Products Production Plant in Aurich, Germany



**2000**

Foundation of KÖSTER Aquatecnic for UK and Ireland



**2004**

Foundation of KÖSTER Polska Sp.z.o.o. for Poland and Ukraine.



**2014**

Expansion and construction of a new manufacturing facilities in KÖSTER USA.



**2016**

The founder and owner of KÖSTER BAUCHEMIE AG, Johann J. Köster, switch over to the Supervisory Board, and his brother, Dr. Dieter Köster, appointed as Chairman of the Management Board.



**2017**

Construction of a new powder plant in KÖSTER USA.



**2018**

Inauguration of the new KÖSTER logistics center in Aurich.



**2022**

Dr. Hugo Torres becoming new member of the board.

Today KÖSTER BAUCHEMIE AG has developed into a respected producer of environmentally friendly products for waterproofing, and after 40 years since its foundation, the company exports to over 70 countries worldwide.

The KÖSTER Group is comprised of 16 companies with locations in Germany, Turkey, China, USA, Japan, Poland, the Netherlands, Portugal, the UK and Bulgaria.





## 40 years of waterproofing experience

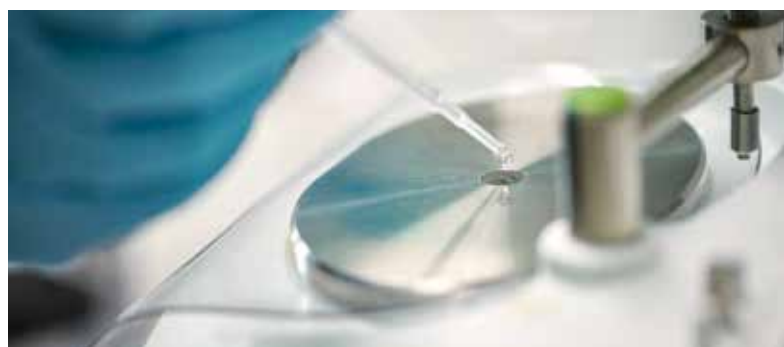
KÖSTER BAUCHEMIE AG has specialized in waterproofing products and systems for decades. These systems protect and preserve buildings and structures worldwide.

Whether it is the restoration of historic buildings, waterproofing new buildings, restoration of masonry, waterproofing of wet basements, roofs or façades: with our comprehensive product range we have the optimal solution.

## Effective waterproofing systems around the world

KÖSTER waterproofing systems and products are applied worldwide. With production facilities at our headquarters in Germany and subsidiaries in Bulgaria, China, Japan, the Netherlands, Poland, Portugal, Turkey, the UK and the USA, KÖSTER products are sold around the world. A large network of agencies and distribution centers in Germany, Europe and overseas guarantees that KÖSTER products are where they are needed shortly after they are ordered.





## Environmentally friendly products of the highest quality

The KÖSTER BAUCHEMIE AG invests a lot of time and effort in the research and development of new waterproofing systems and products. As a responsible manufacturer, KÖSTER BAUCHEMIE AG places great value on preserving the environment by developing and producing environmentally friendly products through resource saving production.

Test certificates and regular monitoring by third party laboratories confirm the high quality of KÖSTER waterproofing systems.

## Your reliable partner in construction

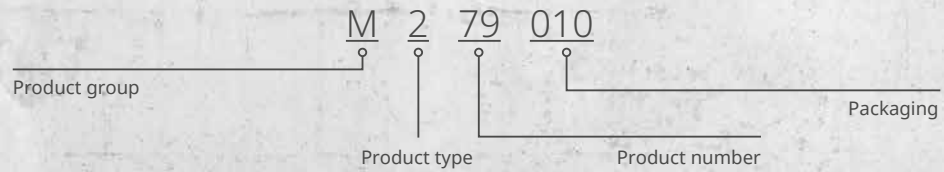
The distribution of our products via technical consultants ensures that applicators receive the support they need in order to apply our products effectively and properly. Waterproofing systems from KÖSTER – you can rely on them!

From professionals for professionals: Products from KÖSTER BAUCHEMIE AG have been developed and produced to prove their value at all times during professional applications – optimized for on-site use and optimized for on-site use, easy to apply and allow time saving applications with short curing times.



## The article number system explained in brief:

### KÖSTER Crisin 76



Article numbers are sorted according to field of application. As a result, product groups include complete systems for the respective field of application. For example, the product group “IN” (injection) not only includes injection resins but also associated injection packers, injection pumps, spare parts and tools. This makes finding products easy. For instance, the first section, waterproofing, distinguished by a capital “W”, features all waterproofing products followed by fields of application in waterproofing such as external/ internal basement waterproofing and the waterproofing of tanks and pipes. The article numbers have the following structure:

#### **M 279 010 (KÖSTER Crisin 76)**

The M stands for “Masonry” and represents the field of application restoration of masonry and anti-mold systems.

A complete list of all fields of application is listed on the first page.

#### **M 279 010 (KÖSTER Crisin 76)**

The first number (in the example “2”) indicates the type of product:

1. Primers / substrate preparation
2. Main products: Coating / paint / injection material
3. Finish / sealer
4. Broadcast / reinforcement
5. Mortars / sealing pastes
6. Plaster / Anti-mold boards
7. Additives
8. Waterproofing membranes
9. Tools / accessories

#### **M 279 010 (KÖSTER Crisin 76)**

The following two numbers (in the example “79”) indicate the product number in each category.

#### **M 279 010 (KÖSTER Crisin 76)**

The last three numbers indicate the delivery form. For example, “010” means 10 l, or 10 kg, respectively.

An additional letter at the end indicates a further specification. For example, W 210 008 B (KÖSTER 21 B component).

In the case of roofing membranes, the article number is completely comprised from the product description:

The article number for the roofing membrane KÖSTER TPO 1.8 – 2.10m is RT 818 210 (Roofing TPO / “8” = waterproofing membrane / 18 = 1.8 / 210 = 2.10 m width). The standard color is light grey. Other colors are indicated by an additional letter (for example: RT 818 210 W stands for white).





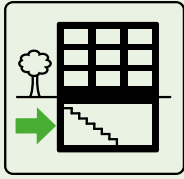
W

# Waterproofing systems

Basement, tank, and area waterproofing



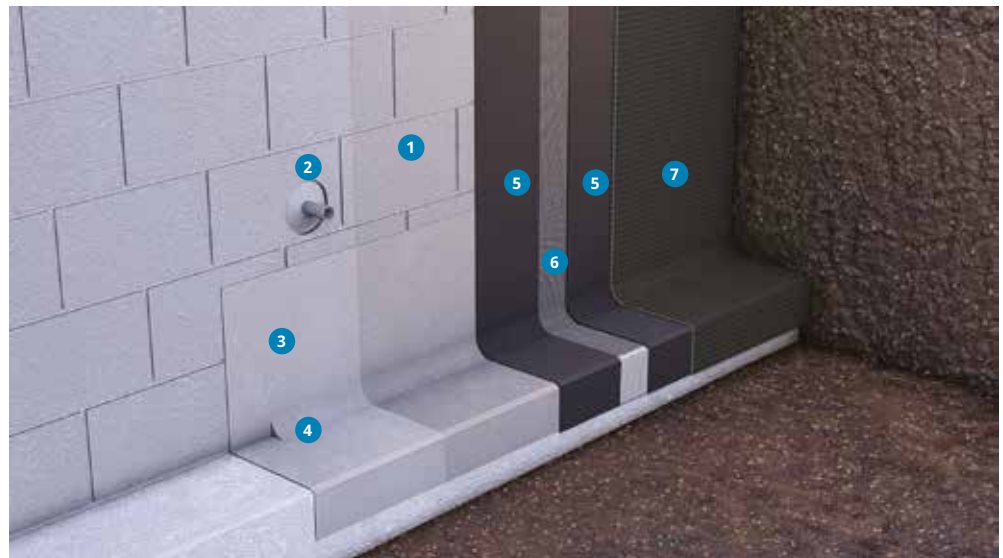
## External basement waterproofing



Wet basements cannot be fully used and might endanger the building substance. We offer different methods for making basements permanently waterproof: From the outside with polymer-modified thick film sealants, mineral sealing slurries or a cold self-adhesive waterproofing membrane – whereby the entire external wall area is treated and thus protected from water penetration. In repair cases, the external waterproofing can be installed even from the inside of the basement. This method is called “curtain injection”.

## External basement waterproofing with bitumen based waterproofing systems

- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Waterproofing pipe penetrations**  
KÖSTER KB-Flex 200
- 3 **Preparing wall/floor junctions**  
KÖSTER NB 1 Grey
- 4 **Installing fillets**  
KÖSTER Repair Mortar Plus
- 5 **Waterproofing layer**  
KÖSTER Deuxan 2C  
KÖSTER Deuxan 2C (UK)
- 6 **Reinforcement**  
KÖSTER Glass Fiber Mesh
- 7 **Protection of the waterproofing layer**  
KÖSTER SD  
Protection and Drainage Sheet 3-400



The use of bituminous products belongs to the standard solutions for the positive side waterproofing of basements. The systems are applied in a paste-like form and are therefore seamless. They are easy and safe to use and have crack bridging properties. On clean, solid, stable, gypsum free mineral substrates KÖSTER Polysil TG 500 is applied as a primer. This immobilizes salts present in the substrate and the substrate is solidified. When preparing to waterproof on top of old bituminous coatings KÖSTER Bitumen Primer is used.

Pipe and cable penetrations are sealed with the permanently plastic putty KÖSTER KB-Flex 200 and protected by a layer of KÖSTER KB-Fix 5. Alternatively, these areas can be connected with a fillet of the respective thick film sealant or fitted with flanges.

To protect against water creeping behind the lower waterproofing connections,

KÖSTER NB 1 Grey mixed with KÖSTER NB 1 Flex is applied first. To prevent stresses in the waterproofing, rounded fillets are installed in the wall / floor junctions.

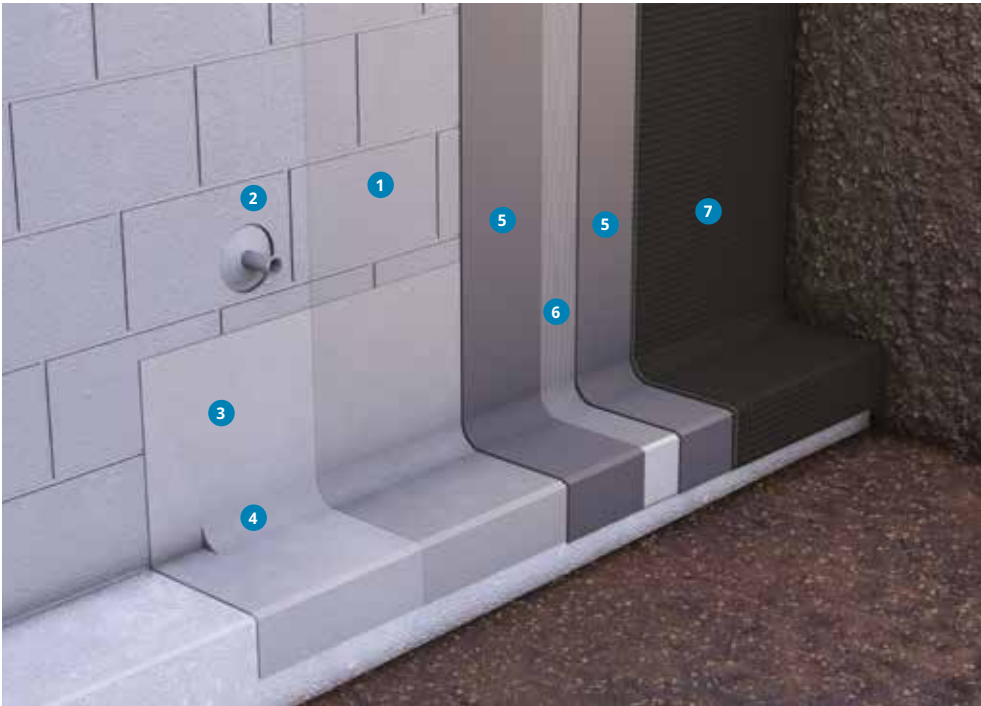
The actual area waterproofing is achieved using KÖSTER Deuxan 2C in two layers applied by trowel or spray equipment. For greater ease of manual application use KÖSTER Bikuthan 1C or 2C. The inclusion of KÖSTER Glass Fiber Mesh is recommended in all thick film sealants and all applications. This allows for a better control of the coating thickness and safely absorbs movement in the building.

Before backfilling, the positive side waterproofing is to be protected from mechanical damages and settling with KÖSTER SD Protection and Drainage Sheet.

Always adhere to the specifications in the respective Technical Guidelines.



## External basement waterproofing with mineral based waterproofing systems



- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Waterproofing pipe penetrations**  
KÖSTER KB-Flex 200
- 3 **Preparing wall/floor junctions**  
KÖSTER NB 1 Grey
- 4 **Installing fillets**  
KÖSTER Repair Mortar Plus
- 5 **Waterproofing layer**  
KÖSTER NB 4000
- 6 **Reinforcement**  
KÖSTER Glass Fiber Mesh
- 7 **Protection of the waterproofing layer**  
KÖSTER SD  
Protection and Drainage Sheet 3-400

Mineral sealing slurries are especially robust waterproofing systems with extremely good adhesion to mineral surfaces. They are not affected by moist surfaces and become an integral part of the building structure on which they were applied. Mineral sealing slurries are paste-like and are applied seamlessly to the building element being waterproofed. They are easy and safe to apply and can be installed as rigid or crack bridging systems.

On clean, solid, stable, gypsum free mineral substrates KÖSTER Polysil TG 500 is applied as a primer. This immobilizes salts present in the substrate and the substrate is solidified.

Pipe penetrations are waterproofed using KÖSTER KB-Flex 200 and sealed with KÖSTER KB-Fix 5. Alternatively, these areas are to be attached to the waterproofing using proper sleeves or flanges.

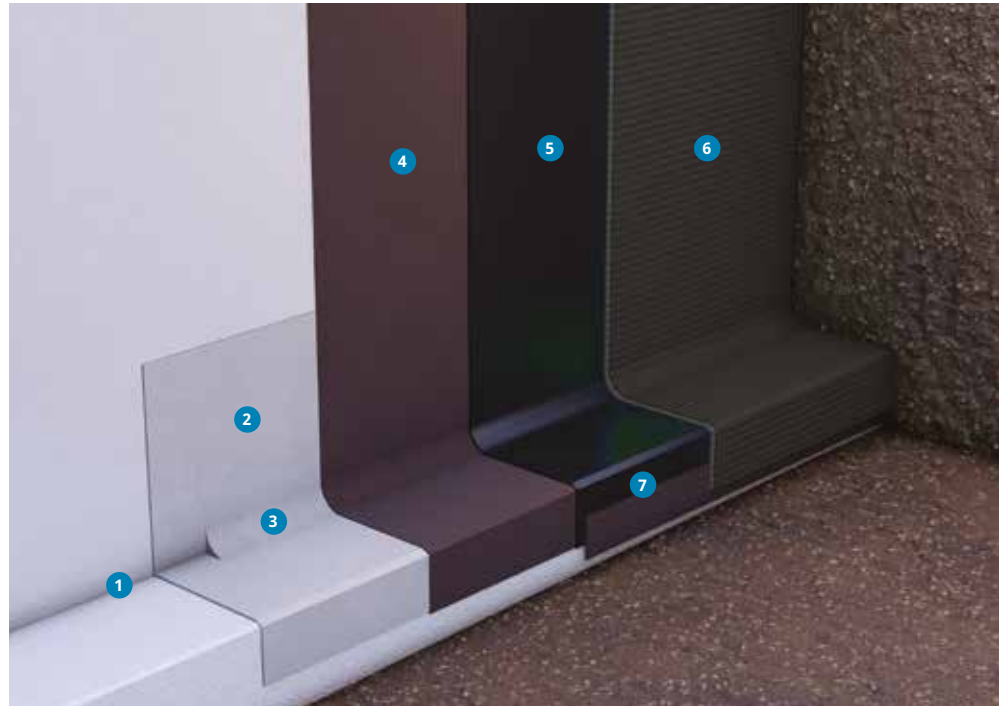
The actual area waterproofing is achieved using KÖSTER NB 4000 in two layers. The installation of KÖSTER Glass Fiber Mesh is recommended between the KÖSTER NB 4000 layers to achieve an especially reinforced waterproofing layer. In areas especially in danger of water creeping behind the waterproofing such as wall-floor junctions, a substrate preparation with KÖSTER NB 1 Grey mixed with KÖSTER NB 1 Flex is applied. To avoid stresses in the elastic waterproofing, rounded fillets made of KÖSTER Repair Mortar Plus are installed in interior corners.

Before backfilling, the waterproofing is protected from mechanical damages and settling with KÖSTER SD Protection and Drainage Sheet.

Always adhere to the specifications in the respective Technical Guidelines.

## External basement waterproofing with cold self-adhesive waterproofing membranes

- 1 **Joint sealing**  
KÖSTER Quellband
- 2 **Preparing wall/floor junction**  
KÖSTER NB 1 Grey
- 3 **Installing fillets**  
KÖSTER Repair Mortar Plus
- 4 **Primer**  
KÖSTER KBE Liquid Film
- 5 **Waterproofing layer**  
KÖSTER KSK SY 15
- 6 **Protection of the waterproofing layer**  
KÖSTER SD  
Protection and Drainage  
Sheet 3-400
- 7 **Waterproofing membrane ending**  
KÖSTER KBE Liquid Film



Fast, clean, and easy: Exterior basement waterproofing with KÖSTER KSK cold applied, self adhesive waterproofing membranes. No drying time, instantly watertight, with a tight control of consumption. Apply a primer coat of KÖSTER KBE Liquid Film on clean, solid substrates. Pipe penetrations are sealed using flanges cut to size from KÖSTER KSK Membranes. In areas especially in danger of water creeping behind the waterproofing such as wall-floor junctions, a substrate preparation with KÖSTER NB 1 Grey mixed with KÖSTER NB 1 Flex is applied. To avoid stresses in the elastic waterproofing, rounded fillets made of KÖSTER Repair Mortar Plus are installed in interior corners.

The actual area waterproofing is generally done with KÖSTER KSK SY 15. It is applied crease free to the substrate. The membranes are overlapped 10 cm. Details, corners and connections are made according to the directions on the packaging and according to the Technical Guidelines, and these areas are covered with KÖSTER KBE Liquid Film. On vertical areas the top edge is mechanically fastened and these fasteners are also coated with KÖSTER KBE Liquid Film. Before backfilling the waterproofing is protected from mechanical damage and settling with KÖSTER SD Protection and Drainage Sheet.

Always adhere to the specifications in the respective Technical Guidelines.



## External basement waterproofing with thermoplastic waterproofing membranes



### 1 Waterproofing membrane

KÖSTER ECB 1.5 U S  
KÖSTER ECB 2.0 U S

### 2 Protection of the waterproofing layer

KÖSTER SD  
Protection and Drainage  
Sheet 3-400

KÖSTER Thermoplastic Membranes are applicable for a wide variety of substrates and fields of application. As foundation waterproofing, they excel by their speed of application, durability, instant waterproofing effect, and can be backfilled immediately.

KÖSTER ECB Membranes consist of a mix of thermoplastic ethylene copolymer and a special bitumen, produced in Germany with the highest quality compounds and standards. KÖSTER ECB Membranes conform to DIN EN 13967:2012 and are rated as Type T moisture barriers. They provide high elongation and are highly tear resistant so that even large cracks are bridged securely.

KÖSTER ECB Membranes are free of pvc as well as plasticizers and are age and

root resistant. As they can withstand high mechanical influences and stresses, they are the perfect protection for underground structures.

To ensure a watertight installation and long service life, the KÖSTER ECB membrane seams are welded homogeneously with hot air, using a special welding seam dedicated machine. A signal top layer shows any mechanical damage that can be repaired quickly and easily.

Before backfilling the waterproofing is protected from mechanical damage and settling with KÖSTER SD Protection and Drainage Sheet.

Always adhere to the specifications in the respective Technical Guidelines.”

## External basement waterproofing with curtain injection

### 1 Pump

KÖSTER Acrylic Gel Pump

### 2 Installing the packers

KÖSTER Packer  
13 mm x 130 mm CH  
KÖSTER Superpacker  
10 mm x 115 mm CH  
KÖSTER Superpacker  
10 mm x 85 mm CH  
KÖSTER Superpacker  
13 mm x 115 mm CH  
KÖSTER Superpacker  
13 mm x 115 mm PH  
KÖSTER Superpacker  
13 mm x 85 mm CH  
KÖSTER Superpacker  
13 mm x 85 mm PH

### 3 Waterproofing layer

KÖSTER Injection Gel G4



Exterior basement waterproofing from inside the building? In the case of renovation, it is not always possible to expose the exterior walls through excavation. For example, where the area to be excavated is built upon, traffic concerns impede the excavation, or the economic cost of excavation is deemed too high. You would first think of an internal (negative side) basement waterproofing, but in some cases, such as in historical buildings or buildings with special architectural requirements, this may not be desirable.

In these cases, a curtain injection with KÖSTER Injection Gel G4 is possible: The resin is injected through the wall from the

inside to the outside. Water present behind the wall does not represent a challenge for the KÖSTER injection gels since they do not react with it, but instead it is bound in its matrix, resulting in a waterproof elastic solid body.

The injection is carried out with the special two-component pump, KÖSTER Acrylic Gel Pump, and through special KÖSTER injection packers.

Taking advantage of the extremely low viscosity of the gel, injection into difficult soil conditions like fine sand, silt and some clays is possible.

Always adhere to the specifications in the respective Technical Guidelines.



## Waterproofing under the foundation plate



A complete waterproofing system in new construction includes waterproofing the floor slab. Compared to the application on top of the concrete slab, the installation of the waterproofing layer underneath the foundation plate keeps the foundation dry and the concrete provides a better thermal insulation. KÖSTER provides a wide range of different solutions for completing the waterproofing under the foundation plates with total security. If the choice is for a liquid application solution, it is necessary to first apply the primer KÖSTER Polysil TG 500 to lock any existing salts in the substrate and provide a better bond between the waterproofing and the substrate. For the liquid option, the choice can be the use of the PMBC system KÖSTER Deuxan 2C (applied in two layers with KÖSTER Glass Fiber Mesh reinforcement) or the novelty hybrid coating KÖSTER NB 4000

that allows the works to carry on even at extremely low temperatures.

For the pre-fabricated membranes, KÖSTER offers the 1.5 mm self-adhesive rubber-bitumen laminated membranes with 2 different top layers (HDPE or Aluminium Foil) called KÖSTER KSK SY 15 and KÖSTER KSK ALU 15. These types of membranes are cold applied, and are extremely easy and fast application, creating an immediate waterproofing effect.

Still in the pre-fabricated membranes, KÖSTER also offers the extremely resistant ECB (ethylene copolymer bitumen) membranes, that are mechanically fastened and/or loose-laid.

The overlaps on these membranes are welded using hot air devices, guaranteeing a complete and secure waterproofing seal.

Always adhere to the specifications in the respective Technical Guidelines.

- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Waterproofing layer**  
KÖSTER Deuxan 2C  
KÖSTER NB 4000  
KÖSTER KSK SY 15  
KÖSTER KSK ALU 15  
KÖSTER ECB 1.5 U S  
KÖSTER ECB 2.0 U S
- 3 **Embedded mesh**  
KÖSTER Glass Fiber Mesh
- 4 **Gliding Layer**  
Customary PE-foil
- 5 **Fillet**  
KÖSTER WP Mortar
- 6 **Waterproofing layer**  
KÖSTER NB 1 Grey
- 7 **Protection of the waterproofing layer**  
KÖSTER SD  
Protection and Drainage  
Sheet 3-400

## Waterproofing of pile heads with bitumen based liquid systems

- 1 Reprofiling  
KÖSTER Repair Mortar R4
- 2 Waterproofing of pile heads  
KÖSTER NB 1 Grey
- 3 Corrosion protection  
KÖSTER Z 1
- 4 Corrosion protection  
KÖSTER Z 2
- 5 Waterproofing layer  
KÖSTER Deuxan 2C
- 6 Embedded Mesh  
KÖSTER Glass Fiber Mesh
- 7 Waterproofing layer  
KÖSTER Deuxan 2C
- 8 Gliding Layer



Damage in existing buildings is often caused by leaking pile foundations. Water can enter the building through the construction joints or make its way along the reinforcement steel. The waterproofing of pile heads has to withstand heavy loads from the whole building and needs to be easily connected to the area waterproofing.

At first, all non-load bearing materials and separating substances have to be removed from the surface of the pile head. After that, the surface has to be levelled and reprofiled with KÖSTER Repair Mortar or KÖSTER Repair Mortar R4. This reprofiling must also include the installation of a fillet adjacent to the pile head. KÖSTER NB 1 Grey is used to waterproof the pile head.

Mineral corrosion protection for the steel

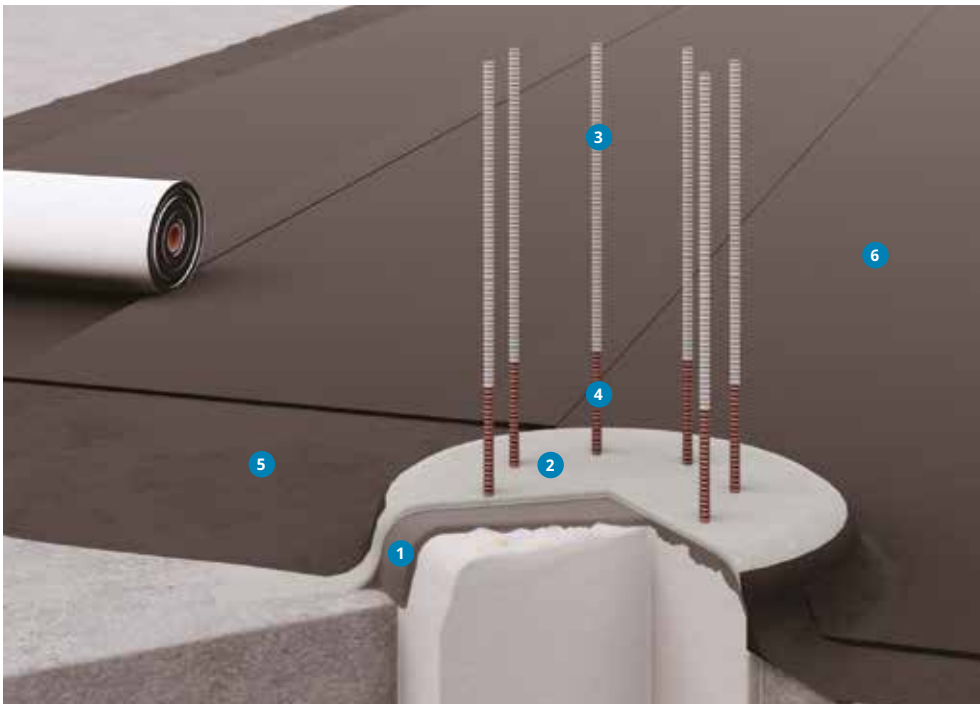
reinforcement bars is carried out with a first layer of the polymer modified special slurry KÖSTER Z 1 and a second layer of KÖSTER Z 2. KÖSTER Z 2 is red pigmented and allows a visual control of the application.

The waterproofing on top of the blinding layer is made with KÖSTER Deuxan 2C. Embed KÖSTER Glass Fiber Mesh into the fresh first layer. Before pouring the concrete for the floor slab, a gliding layer consisting of two layers of customary PE-Foil is applied between the waterproofing and the concrete. Protect the waterproofing layer from mechanical damage when continuing with the application.

Always adhere to the specifications in the respective Technical Guidelines.



## Waterproofing of pile heads with cold applied self-adhesive membranes



- 1 Reprofilling  
KÖSTER Repair Mortar R4
- 2 Reprofilling  
KÖSTER NB 1 Grey
- 3 Corrosion protection  
KÖSTER Z 1
- 4 Corrosion protection  
KÖSTER Z 2
- 5 Primer  
KÖSTER KBE Liquid Film
- 6 Waterproofing Layer  
KÖSTER KSK SY 15

Damage in existing buildings is often caused by leaking pile foundations. Water can enter the building through the construction joints or make its way along the reinforcement steel. The waterproofing of pile heads has to withstand heavy loads from the whole building and needs to be easily connected to the area waterproofing.

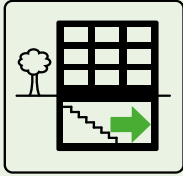
At first, all non-load bearing materials and separating substances have to be removed from the surface of the pile head. After that, the surface has to be levelled and reprofiled with KÖSTER Repair Mortar or KÖSTER Repair Mortar R4. This reprofiling must also include the installation of a fillet adjacent to the pile head. KÖSTER NB 1 Grey is used to waterproof the pile head.

Mineral corrosion protection for the steel reinforcement bars is carried out with a first layer of the polymer modified special slurry KÖSTER Z 1 and a second layer of KÖSTER Z 2. KÖSTER Z 2 is red pigmented and allows a visual control of the application.

The waterproofing on top of the blinding layer is made with KÖSTER KSK SY 15. KÖSTER KBE Liquid Film is applied as primer on the entire surface as well as on all overlaps around the pile head. Protect the waterproofing layer from mechanical damage when continuing with the application.

Always adhere to the specifications in the respective Technical Guidelines.

## Internal basement waterproofing



In a repair situation, the basement can be waterproofed from the inside without excavating the soil around the building. This means that the basement is permanently waterproofed without the necessity of doing any sort of earthwork. This type of waterproofing is possible with the KÖSTER systems even when the wall has active leakages.

### Internal basement waterproofing on foundation plate with mineral systems

- 1 Horizontal barriers for walls  
KÖSTER NB 1 Grey
- 2 Installing fillets  
KÖSTER Repair Mortar Plus
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Waterproofing layer  
KÖSTER NB 1 Grey  
KÖSTER NB Elastic Grey  
KÖSTER NB 4000



Mineral waterproofing systems have the advantage of excellent bonding properties of the waterproofing material to mineral substrates, the bond between the individual waterproofing layers is excellent too. The longevity of such systems is ideally the lifetime of the building.

To avoid moisture rising through the wall due to capillary action, it is necessary to install a horizontal barrier beneath the wall made from KÖSTER NB 1 Grey (mixed with KÖSTER NB 1 Flex) or the crack bridging material KÖSTER NB Elastic.

To harden the substrate the bottom slab is primed with KÖSTER Polysil TG 500. At the wall floor junction a fillet made from

KÖSTER Repair Mortar Plus is installed to prevent stresses in the subsequent waterproofing layers.

The area waterproofing is normally achieved with KÖSTER NB 1 Grey mixed with KÖSTER NB 1 Flex. In case of pressurized water, the waterproofing needs to be done with the KÖSTER KD System.

Alternatively, the crack bridging waterproofing products KÖSTER NB Elastic Grey or KÖSTER NB 4000 can be used to waterproof the floor slab.

Always adhere to the specifications in the respective Technical Guidelines.



## Internal basement waterproofing on the foundation plate with cold-adhesive waterproofing membranes



- 1 Horizontal barriers for walls  
KÖSTER Fix-Tape 15 SY
- 2 Primer  
KÖSTER KSK Primer BL
- 3 Waterproofing Layer  
KÖSTER KSK SY 15
- 4 Protection layer (PE foil)

Fast, easy application without long waiting times: Waterproofing of the floor slab with KÖSTER KSK cold applied, self adhesive waterproofing membranes.

To avoid rising moisture, it is necessary to install a horizontal barrier underneath the wall with KÖSTER Fix-Tape 15 SY. The priming is done with solvent free materials such as KÖSTER KSK Primer BL or KÖSTER KBE Liquid Film, or KÖSTER Bitumen Primer. As a standard the primed surface of the floor slab is waterproofed with the

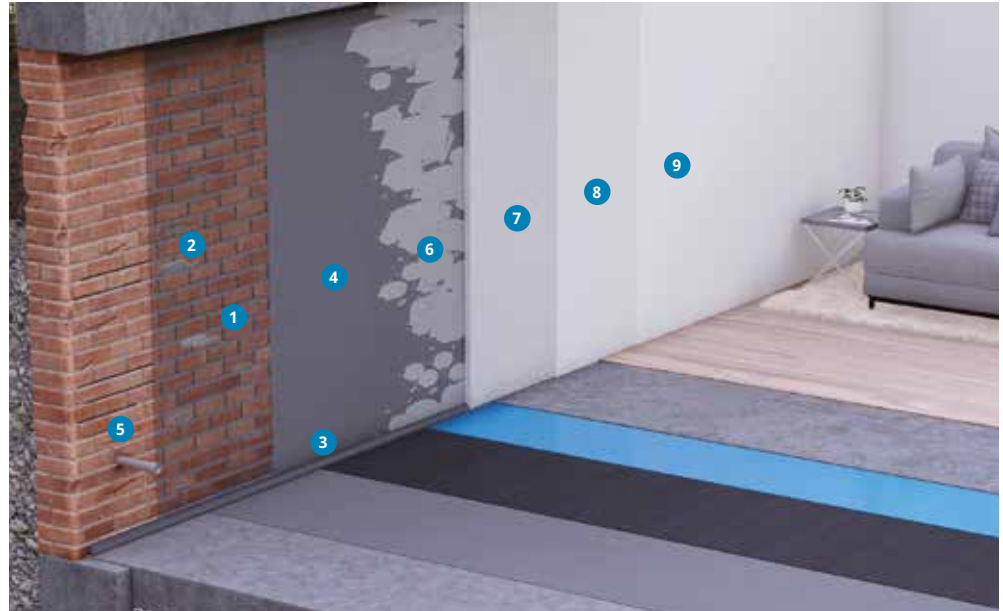
cold applied, self adhesive waterproofing membrane KÖSTER KSK SY 15. Overlap the joints 10 cm. The waterproofing layer is carried up the wall and secured with the KÖSTER Butyl Fix-Tape Fleece.

The applied KÖSTER KSK Membranes have to be protected from mechanical damage as work continues. Before pouring the screed, a gliding layer of customary PE-Foil is applied.

Always adhere to the specifications in the respective Technical Guidelines.

## Internal basement waterproofing in case of ground moisture non pressurised and pressurised water

- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Levelling the surface**  
KÖSTER WP Mortar
- 3 **Installing fillets**  
KÖSTER Repair Mortar Plus
- 4 **Waterproofing layer**  
KÖSTER NB 1 Grey
- 5 **Waterproofing pipe penetrations**  
KÖSTER KB-Fix 5  
KÖSTER KB-Flex 200
- 6 **Plaster key**  
KÖSTER Restoration  
Plaster Key
- 7 **Plaster**  
KÖSTER Restoration  
Plaster White
- 8 **Fine Finish**  
KÖSTER Fine Plaster
- 9 **Paint**  
KÖSTER Silicone  
Paint White



Retroactive waterproofing in existing buildings needs to be done with mineral waterproofing systems. They have excellent bonding characteristics to mineral surfaces and won't detach from wet and moist substrates.

The material is applied to substrates that have to be sound and solid as well as free from bond inhibiting agents. Older plaster coats have to be removed; the joints raked out and all loose particles removed. As primer, KÖSTER Polysil TG 500 is used. It hardens the substrate as well as reduces the mobility of salts. Masonry repair and the installation of a fillet at the wall-floor junction is done with KÖSTER Repair Mortar Plus.

KÖSTER NB 1 Grey is used as the waterproofing layer. To get a lighter surface finish use KÖSTER NB 2 White for the final coating.

Pipe penetrations are waterproofed using KÖSTER KB-Flex 200 and sealed with KÖSTER KB-Fix 5.

In the case of damage to basement walls caused by moisture, generally a KÖSTER Restoration Plaster should be applied. KÖSTER Restoration Plasters are specially

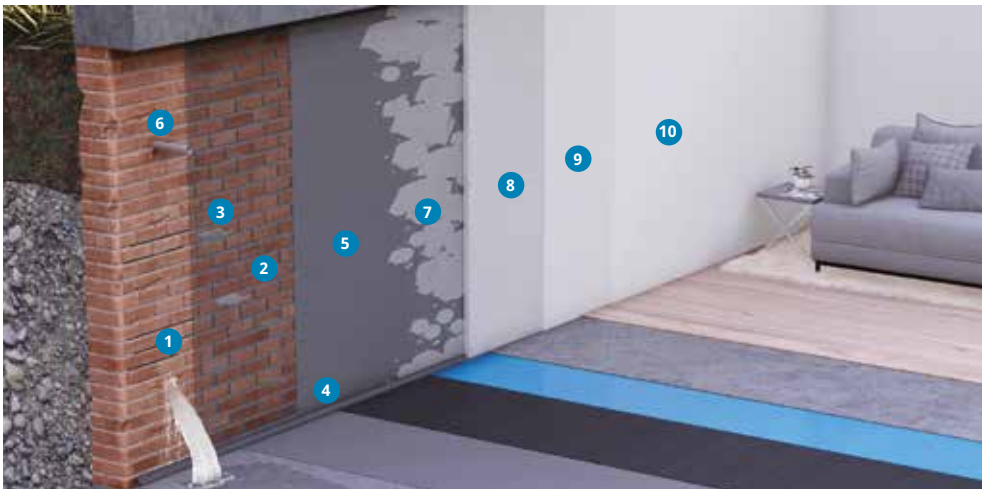
designed for the restoration of masonry with high salt and moisture contents. KÖSTER Restoration Plasters help to dry out the wall and absorb remaining salts. They don't contain lime or gypsum, are open to water vapor diffusion and create a healthy and comfortable room climate.

Before the application of the main plaster coat, a plaster key made from KÖSTER Restoration Plaster Key or the chosen KÖSTER Restoration Plaster mixed with KÖSTER SB-Bonding Emulsion is applied to provide a larger surface area and ensure an optimal bond to the substrate. KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a very smooth surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paints such as KÖSTER Silicone Paint White or KÖSTER MF1.

Always adhere to the specifications in the respective Technical Guidelines.



## Internal basement waterproofing in case of flowing water



A very difficult situation: The basement waterproofing has to be done from the inside but the water is actively entering the building. Often the only solution is the KÖSTER KD-System.

KÖSTER KD 2 Blitz Powder is applied directly by hand to the active leakage. The powder reacts within a few seconds and forms a waterproof mortar. When the active leakages are stopped, the waterproofing layer of KÖSTER KD 1 Base, KÖSTER KD 2 Blitz powder and KÖSTER KD 3 Sealer can be applied.

The material is applied to substrates that have to be sound and solid as well as free of bond inhibiting agents. Older plaster coats have to be removed; the joints raked out and all loose particles removed. Generally, the substrate is primed by prewetting. Repairs and the installation of the fillet at the wall-floor junction are done with KÖSTER Repair Mortar Plus.

KÖSTER KD 1 Base is applied as the waterproofing layer and is brushed onto the substrate. KÖSTER KD 2 Blitz Powder is rubbed onto the still wet surface, immediately creating a dry waterproofed layer. To harden and to strengthen this layer, the third part of the system, KÖSTER KD 3 Sealer, is applied. To waterproof the basement completely, another two layers of KÖSTER KD 1 Base are applied over the first. Pipe penetrations are waterproofed

with KÖSTER KB-Flex 200 sealing paste and plugged with KÖSTER KB-Fix 5.

In the case of damage to basement walls caused by moisture, generally a KÖSTER Restoration Plaster should be applied. KÖSTER Restoration Plasters are specially designed for the restoration of masonry with high salt and moisture contents. KÖSTER Restoration Plasters help to dry out the wall and absorb remaining salts. They don't contain lime or gypsum, are open to water vapor diffusion and create a healthy and comfortable room climate.

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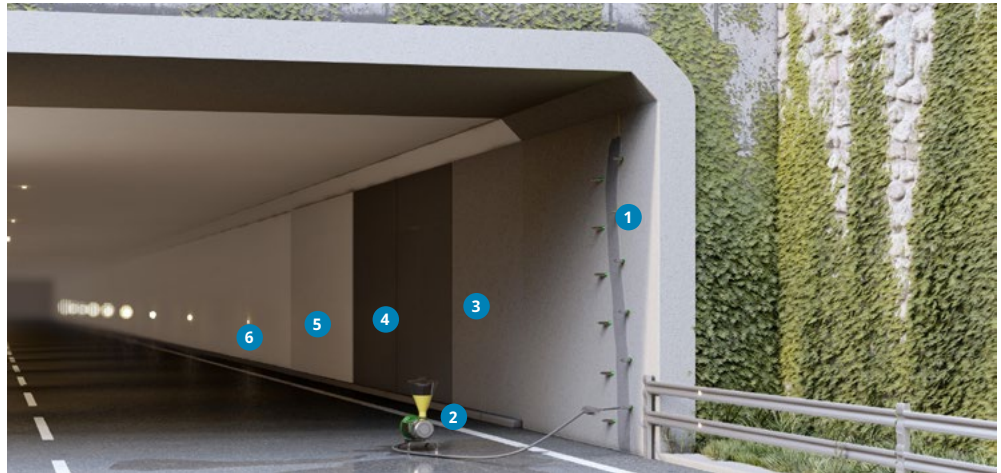
KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a very smooth surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paints such as KÖSTER Silicone Paint White or KÖSTER MF1.

Always adhere to the specifications in the respective Technical Guidelines.

- 1 **Stopping active leakages**  
KÖSTER KD 2 Blitz Powder
- 2 **Primer**  
Water
- 3 **Levelling the surface**  
KÖSTER Repair Mortar Plus
- 4 **Installing fillets**  
KÖSTER Repair Mortar Plus
- 5 **Waterproofing layer**  
KÖSTER KD System
- 6 **Waterproofing pipe penetrations**  
KÖSTER KB-Fix 5  
KÖSTER KB-Flex 200
- 7 **Plaster key**  
KÖSTER Restoration Plaster Key
- 8 **Plaster**  
KÖSTER Restoration Plaster White
- 9 **Fine Finish**  
KÖSTER Fine Plaster
- 10 **Paint**  
KÖSTER Silicone Paint White

## Tunnel waterproofing and restoration

- 1 Crack injection  
KÖSTER 2 IN 1
- 2 Pump  
KÖSTER 1C Injection Pump
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Waterproofing layer  
KÖSTER KD System  
KÖSTER NB 1 Grey
- 5 Surface levelling  
KÖSTER C-Coat
- 6 Paint  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White



The method for waterproofing tunnels and reinstate its proper surface condition with KÖSTER products is based on a combination of negative side waterproofing and surface restoration systems.

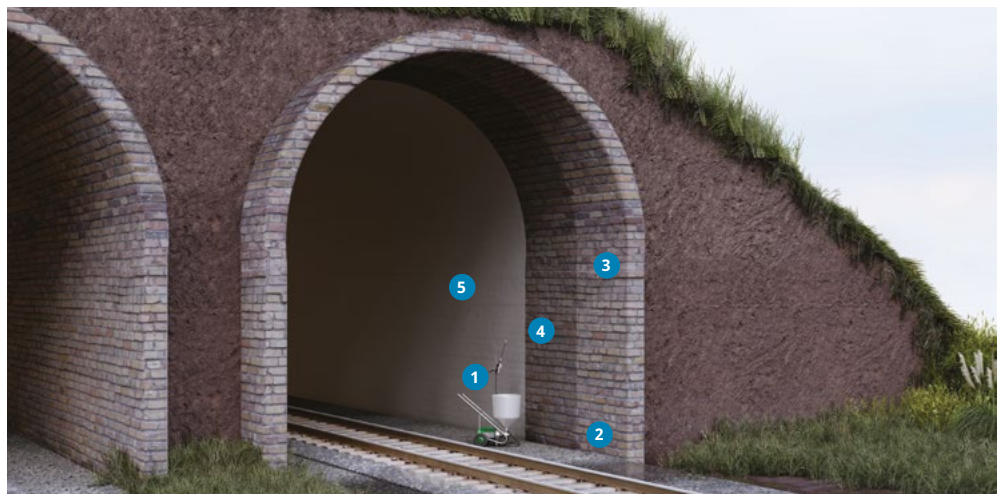
Flowing water is stopped by injecting the water reactive elastic PU-injection resin KÖSTER 2 IN 1. Small leakages which are being penetrated by water as well as water droplet formations can be sealed with KÖSTER KD 2 Blitz Powder. To waterproof

the entire surface from the negative side KÖSTER NB 1 Grey is applied to the prepared substrate. This is followed by a layer of the polymer modified levelling mortar KÖSTER C-Coat to create a uniform appearance. Finally, the system can be covered with a finishing touch of KÖSTER Acrylic Paint.

Always adhere to the specifications in the respective Technical Guidelines. Also observe the local guidelines and standards.

## Internal masonry tunnel Waterproofing

- 1 Pump  
KÖSTER Peristaltic Pump
- 2 Flowing Water  
KÖSTER KD 2 Blitz Powder
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Surface levelling  
KÖSTER WP Mortar
- 5 Negative side waterproofing  
KÖSTER NB 1 Grey

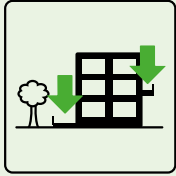


Several waterproofing systems can be applied to the negative pressure inner side. KÖSTER KD 2 Blitz Powder and KÖSTER Waterstop can be used to stop small leaks.

Joints can be repaired with KÖSTER Repair Mortar or KÖSTER WP Mortar, and KÖSTER NB 1 Grey is to be applied on surfaces as negative side waterproofing.



## Waterproofing balconies and terraces



This field poses the highest demands on waterproofing. It must be able to resist the weather, be waterproof and provide a certain structural stability. Also, outside the movements of the construction members are usually comparably large, so that it is necessary to use waterproofing systems with high crack bridging capabilities.

### Waterproofing of balconies and terraces with liquid applied bitumen based waterproofing systems

- 1 Concrete Repair**  
KÖSTER Betomor Multi A  
KÖSTER Repair Mortar R4
- 2 Levelling underlayment**  
KÖSTER SL Protect  
KÖSTER Repair Mortar  
KÖSTER SL Premium
- 3 Primer**  
KÖSTER Polysil TG 500
- 4 Waterproofing Layers**  
KÖSTER KBE Liquid Film  
KÖSTER Deuxan 2C
- 5 Reinforcement**  
KÖSTER Flex Fabric  
KÖSTER Glass Fiber Mesh  
KÖSTER Superfleece
- 6 Screed**
- 7 Tile Adhesive**  
KÖSTER BD  
Flexible Tile Adhesive



Balconies and terraces are constantly exposed to rain, splash water and high temperature fluctuations. Therefore, the waterproofing should always be crack bridging.

When working with liquid applied bituminous waterproofing, the prepared and clean substrate is primed with KÖSTER Polysil TG 500. A rounded fillet made from KÖSTER WP Mortar is installed in wall-floor-junctions in order to protect the subsequent layers from damage caused by movement between the balcony or terrace and the wall.

The waterproofing is carried out with

a liquid applied coating in two layers. Ideally suitable is KÖSTER KBE Liquid Film. Alternatively, the rubberized bitumen thick film sealant KÖSTER Deuxan 2C can be applied. In the wall-floor-junction and areas in danger of cracking KÖSTER Glass Fiber Mesh is embedded into the fresh first waterproofing layer.

A screed protects the waterproofing against mechanical damage. A gliding layer consisting of 2 layers of PE-foil is installed under the screed.

Always adhere to the specifications in the respective Technical Guidelines.

## Waterproofing of balconies and terraces with cold applied self adhesive membranes

- 1 **Concrete Repair**  
KÖSTER Betomor Multi A  
KÖSTER Repair Mortar R4
- 2 **Levelling underlayment**  
KÖSTER SL Premium  
KÖSTER SL Protect  
KÖSTER Repair Mortar
- 3 **Primer**  
KÖSTER Bitumen Primer  
KÖSTER KBE Liquid Film
- 4 **Waterproofing Layers**  
KÖSTER KSK ALU 15  
KÖSTER KSK SY 15
- 5 **Protection Sheet**
- 6 **Screed**
- 7 **Tile Adhesive**  
KÖSTER BD  
Flexible Tile Adhesive



A fast and easy method for waterproofing balconies and terraces is using the cold applied self adhesive KÖSTER KSK waterproofing membranes.

The solid and clean concrete substrate is primed with KÖSTER KBE Liquid Film which provides an excellent bond between the concrete and waterproofing layer.

A fillet in the wall-floor-junction can be installed by using KÖSTER Deuxan, (leg length 2 cm). Alternatively, before priming the substrate a fillet made of KÖSTER WP Mortar is applied (leg length 5 cm).

The standard area waterproofing is done with KÖSTER KSK SY 15. The waterproofing

membranes are simply bonded onto the prepared substrate and overlapped min. 10 cm on each side.

If the waterproofing is applied vertically onto a wall, the waterproofing membrane is mechanically fixed. If the top end of the waterproofing is to be plastered, it can be covered with KÖSTER Butyl Fix-Tape Fleece.

A screed protects the waterproofing against mechanical damage. A gliding layer consisting of 1 layer of PE-foil is installed under the screed.

Always adhere to the specifications in the respective Technical Guidelines.

## Waterproofing of balconies and terraces with mineral based waterproofing systems



The mineral waterproofing of balconies and terraces is carried out with crack bridging systems like KÖSTER NB Elastic Grey, KÖSTER 21 or KÖSTER NB 4000. These waterproofing materials are resistant to foot traffic and can be covered with tiles. They also have the ability to create an excellent bond to damp substrates.

The concrete surface must be mechanically cleaned and a solid substrate achieved. Reinforcement steel has to be thoroughly cleaned from rust by sandblasting. In case of severe damage, the reinforcement has to be strengthened. Before installing the waterproofing system, concrete repair work is done with KÖSTER Betomor Multi A. To level the surface, the self-levelling

underlayment KÖSTER SL Premium is highly recommended.

The substrate is hardened and prepared with the primer KÖSTER Polysil TG 500. Fillets are installed with KÖSTER WP Mortar. In the wall-floor-junction and all areas in danger of cracking KÖSTER Superfleece is embedded into the fresh first waterproofing layer. Full area reinforcement is carried out by embedding KÖSTER Glass Fiber Mesh into the first layer of the waterproofing material as well.

The final finish with the installation of tiles can be carried out with the flexible adhesive KÖSTER BD Flexible Tile Adhesive.

Always adhere to the specifications in the respective Technical Guidelines.

### 1 Concrete repair

KÖSTER Betomor Multi A  
KÖSTER Repair Mortar R4

### 2 Levelling underlayment

KÖSTER SL Premium  
KÖSTER SL Protect  
KÖSTER Repair Mortar

### 3 Primer

KÖSTER Polysil TG 500

### 4 Waterproofing Layers

KÖSTER NB 4000  
KÖSTER NB Elastic Grey  
KÖSTER 21

### 5 Reinforcement

KÖSTER Flex Fabric  
KÖSTER Glass Fiber Mesh

### 6 Tile Adhesive

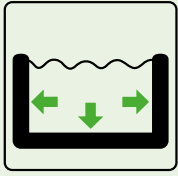
KÖSTER BD Flexible Tile  
Adhesive

### 7 Waterproofing wall / floor junctions

KÖSTER Superfleece



## Waterproofing potable water tanks



Waterproofing for drinking water storage structures and tanks must not only remain watertight for many years, but must also meet all sanitary requirements. The system used should be free of development of micro-organisms on the surface and at the same time, allow an easy and periodical cleaning method, with non-harmful substances.

## Waterproofing water tanks with TPO membranes

### 1 Substructure

### 2 KÖSTER TPO Membrane

KÖSTER TPO Aqua 1.5  
KÖSTER TPO Aqua 2.5 Geo

### 3 Mechanical fastening

KÖSTER TPO  
Metal Composite Sheet  
light grey

### 4 Accessories

Leister Automatic Welder  
Uniroof AT  
Leister Automatic Welder  
Varimat V2



KÖSTER TPO Aqua is a homogeneous thermoplastic polyolefin waterproofing membrane for drinking water structures. KÖSTER TPO Aqua complies with the hygienic requirements for potable water surroundings according to the German DVGW Worksheet W 270 and the KTW guideline.

The membrane is mechanically fastened, which leads to low preparation requirements on the substrate. The substrate must be as smooth as possible and free of edges, depressions, and other defects that can mechanically damage the membrane. Edges must be ground and depressions and holes filled and leveled with KÖSTER Repair Mortar. Soil substrates must be excavated down to a solid layer and mechanically compacted. In interior corners on concrete, masonry, or other mineral substrates and structures,

install a fillet made of KÖSTER Repair Mortar Plus on the wall-floor-junction approx. 24 hours prior to the application. For extra mechanical protection of the membrane, a geotextile mat (approx. 500 g/m<sup>2</sup>) can be installed on the bottom of the reservoir before installing the KÖSTER TPO Aqua.

Overlaps are connected by hot air welding, which creates a homogeneous, durable connection.

For large areas, the Leister Automatic Welder Varimat V2 hot air machine is used. Details and non-accessible areas are welded with the Leister Hot-Air Hand Tool with a 40 mm nozzle.

Details such as terminations, penetrations, and flashings are job-site specific and require special care. Always adhere to the specifications in the respective Technical Guidelines.

## Waterproofing water tanks with 1 component crystalizing mineral coat



- 1 Concrete Repair  
KÖSTER Repair Mortar R4
- 2 Installing fillets  
KÖSTER Repair Mortar Plus
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Waterproofing layer  
KÖSTER NB 1 Grey

Waterproofing tanks with mineral based products has a long history of successful applications. Various design requirements such as water-tightness, durability, mechanical and chemical resistance must

be considered, as well as certification for use in drinking water environments. The KÖSTER NB 1 System for these types of constructions meets and exceeds all of these requirements.

## Waterproofing water tanks with 2 component elastic mineral coat



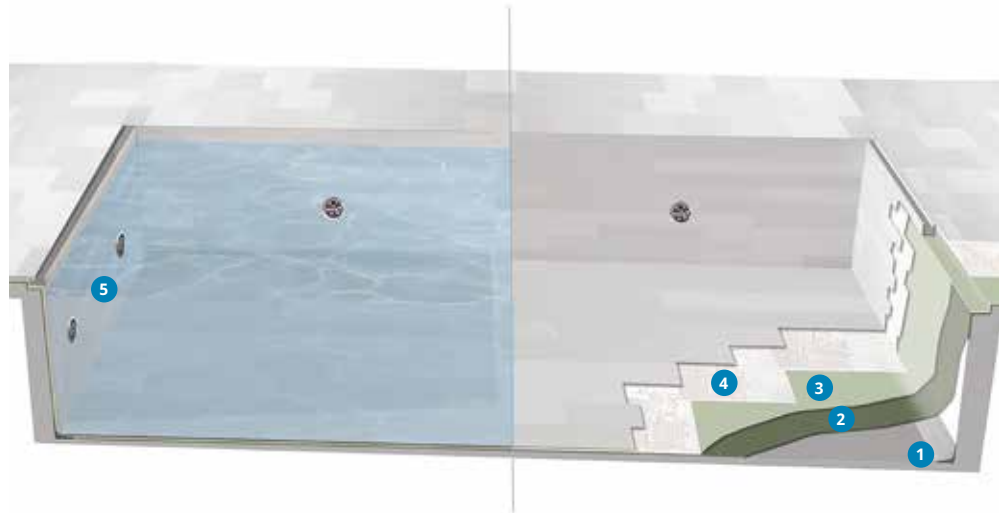
- 1 Concrete Repair  
KÖSTER Repair Mortar R4
- 2 Installing fillets  
KÖSTER Repair Mortar Plus
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Waterproofing layer  
KÖSTER 21

Often water tanks have special requirements on the waterproofing system, such as being elastic with crack-bridging capabilities. Other factors may be

pollutants in the water, as is common with skimmer tanks. A system including KÖSTER 21 is exactly the right choice for these types of environments.

## Waterproofing swimming pools

- 1 Fillet  
KÖSTER WP Mortar
- 2 Negative side waterproofing  
KÖSTER NB 1 Grey
- 3 Positive side waterproofing  
KÖSTER NB Elastic Grey  
KÖSTER NB 4000
- 4 Tile adhesive  
KÖSTER BD  
Flexible Tile Adhesive
- 5 Penetrations  
KÖSTER KB-Flex 200



Waterproofing swimming pools has unique requirements. Not only must it provide a suitable substrate for liners, elastomeric paints, or tiles, but it has to resist both positive and negative side water pressure. It should also have crack-bridging capabilities as these structures tend to settle greatly. The KÖSTER system designed and implemented for waterproofing swimming pools has a long track record of success.

The system is applied to substrates that are sound and solid as well as free from bond inhibiting agents. As primer, KÖSTER Polysil TG 500 is used. It hardens the substrate and reduces the mobility of salts. The installation of a fillet at the wall-floor-junction is done with KÖSTER WP Mortar to prevent stresses in the subsequent waterproofing layers.

The negative side waterproofing is achieved with KÖSTER NB 1 Grey. In case of

pressurized water, the waterproofing needs to be done with the KÖSTER KD System.

The positive side waterproofing is carried out with crack bridging systems like KÖSTER NB Elastic Grey or KÖSTER NB 4000. These waterproofing materials are resistant to foot traffic and can be covered with tiles. They also have the ability to create an excellent bond to damp substrates. The installation of KÖSTER Glass Fiber Mesh is recommended between the first and second layer of the waterproofing system to enhance the movement resistance.

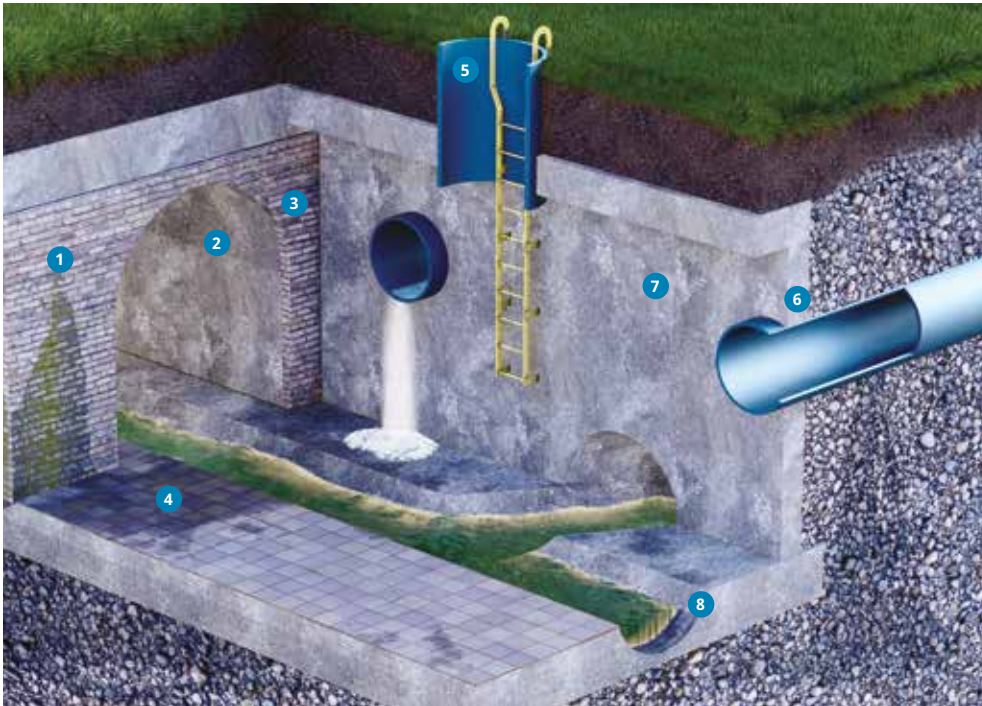
The tiling can then be performed with the single component and flexible adhesive KÖSTER BD Flexible Tile Adhesive.

Pipe penetrations are waterproofed using KÖSTER KB-Flex 200 and sealed with KÖSTER KB-Fix 5.

Always adhere to the specifications in the respective Technical Guidelines.



## Waterproofing of pipes, manholes and sewage areas



Waterproofing tanks and pipes in sewage systems represent always a challenge due to the multiple substrate conditions, different construction materials, as well as demands on each of elements. Active leakages can be stopped within a few seconds simply by using the dry powder KÖSTER KD 2 Blitz Powder or alternatively the plugging mortar KÖSTER Waterstop.

For the substrate preparation, all contaminants and separating substances have to be removed from the surface. After that, the surface has to be levelled and reprofiled with KÖSTER Repair Mortar NC or KÖSTER Repair Mortar R4.

Large areas are waterproofed with the mineral based, sulfate resistant waterproofing system KÖSTER NB 1.

Floor and wall areas that are subject to acid attack caused by condensation of the gases, can be protected with the three-component, highly chemical resistant, silicate

and polymer-based special mineral mortar KÖSTER PSM. The sealant KÖSTER PSM 2S + serves as protection against thermal and chemical stresses.

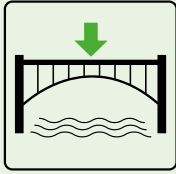
The quick restoration of the concrete elements is accomplished with the water tight, fast curing and fast setting restoration mortar KÖSTER Sewer and Shaft Mortar; allowing a fast reopening of the sewage system. KÖSTER Sewer and Shaft Mortar develops a high compressive strength, is fiber reinforced, very easy to apply and workable even under flowing water. It is also approved for drinking water applications.

Voids and even gaps between the elements can be securely sealed within its smallest pores with the extremely low viscosity acrylic gel KÖSTER Injection Gel G4. Crack injections can be carried out with the KÖSTER 2 IN 1.

Always adhere to the specifications in the respective Technical Guidelines.

- 1 **Stopping active leakages**  
KÖSTER KD 2 Blitz Powder  
KÖSTER Waterstop
- 2 **Waterproofing sewers**  
KÖSTER NB 1 Grey  
KÖSTER Repair Mortar NC  
KÖSTER Repair Mortar R4
- 3 **Waterproofing masonry**  
KÖSTER NB 1 Grey
- 4 **Acid protection**  
KÖSTER PSM  
KÖSTER PSM 2S+
- 5 **Waterproofing shafts**  
KÖSTER Sewer  
and Shaft Mortar
- 6 **Waterproofing pipe couplings**  
KÖSTER Injection Gel G4
- 7 **Crack injection**  
KÖSTER Injection Gel G4  
KÖSTER 2 IN 1
- 8 **Heavy duty surface protection**  
KÖSTER Sewer  
and Shaft Mortar

## Car Parking and Bridge Deck Waterproofing System



Car Parking as well as bridge deck Waterproofing demand high standards on the materials, not only during their installation and resilience to hot bitumen on asphalt roads, but also on the durability when exposed to harsh environmental conditions and dynamic loads. A suitable system must therefore, be able to withstand high temperatures, provide adequate bond and create a flexible and reliable waterproofing barrier.

## Car Parking and Bridge Deck Waterproofing System

- 1 Substrate
- 2 Primer  
KÖSTER CT 225  
Bridge Deck Coating
- 3 Hot Bitumen
- 4 KÖSTER ECB Membrane  
KÖSTER ECB 2F
- 5 Backing rod



The KÖSTER Car Parking and Bridge Deck Waterproofing system consists of the two-component epoxy resin KÖSTER CT 225 Bridge Deck Coating and the elastic KÖSTER ECB 2F Waterproofing Membranes.

KÖSTER CT 225 Bridge Deck Coating is a thermally stable priming epoxy and is used to prepare the surfaces of concrete road sections, bridge decks, car parking decks and civil engineering structures for overworking with mastic asphalt according to ZTV-ING (part 7).

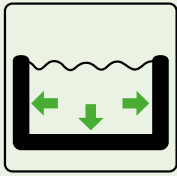
The waterproofing system that is applied directly onto this primer is based on KÖSTER ECB membranes made of a mixture of Ethylene Copolymer and a special bitumen. The KÖSTER ECB 2F is a membrane especially designed for the secure waterproofing

of roads, Car Parking and bridge decks, according to the high german standards ZTV-ING (part 7). The KÖSTER ECB 2F membranes contain a centrally embedded glass fiber mesh and are additionally laminated with a polyester fleece on both sides in order to provide adhesion to the substrate below and to the supper structure. The application of KÖSTER ECB 2F membranes is carried out with hot bitumen.

For the compensation of movements between different concrete sections, it is necessary to install a two-layer membrane system above the joints, while a backing rod is placed in the chamfered joint section between the membranes.

Always adhere to the specifications in the respective Technical Guidelines.

## Dams and Canals



A hydraulic structure is a man-made structure submerged or partially submerged which disrupts the natural flow of water in order to use it for other purposes, such as energy production, storage and even protection (against flooding). These structures are commonly known as dams. Other types of man-made structures that deal with big quantities of water are canals and artificial lakes, that are mostly used for storage and irrigation purposes for agriculture and drinking water transport, but also for hydropower production.

## Dams and Canals



1 Substrate

2 Waterproofing layer  
TPO Aqua 2.5 Geo

The watertightness in concrete structures is provided by the concrete itself but due to the concrete's characteristics, the likelihood of developing cracks and other leaking pathologies requires the waterproofing treatment of the upstream side. On the other hand, the masonry structures are even more critical in developing leakages and requiring an effective waterproofing system.

The KOSTER TPO Aqua 2.5 Geo is an extremely robust TPO membrane made with the highest quality polymers and special additives that provide a very flexible but at the same time, very strong membrane. Our membrane features a 2,5 mm homogenous PE base TPO with a bottom section with factory embedded 500 g polyester fleece geotextile, for extra protection of the membrane against irregularities and protuberances that with the water pressure and weight, could

contribute to damage the integrity of the membrane.

This special membrane allows the fastest waterproofing application method available, both for new structures and old structures that require a renovation. It is simply applied with mechanical fixation to the structure, without the necessity of any kind of surface preparation or removal of any old coatings that might exist, and allows a high stability in steep slopes and durability against atmospheric agents.

The use of our KOSTER TPO Aqua 2.5 Geo, reduces almost to zero the negative effect of cracks, substrate erosion and growing weeds on the concrete or masonry surface.

This special membrane is a truly environmentally responsible product, totally free of plasticizers and other volatile compounds and will help save millions of cubic meters of water, with total security and respect for the environment.



**KÖSTER**  
Bitumen Primer

10 l bucket  
(W 110 010)

Solvent containing dust-binding bitumen primer. Suitable for KÖSTER KSK cold applied self adhesive waterproofing membranes and polymer modified bitumen thick film sealants. Suitable as bonding agent for old bitumen.

**Consumption:** Approx. 150 - 200 ml/m<sup>2</sup>



**KÖSTER**  
Primer BL

15 kg bucket  
(W 120 015)

Solvent-free primer for the application of KÖSTER KSK waterproofing membranes and KÖSTER Polymer Modified Bitumen Coatings above 5 °C. Strongly adhesive, based on emulsified bitumen with a high synthetic content.

**Consumption:** Approx. 150 - 300 g / m<sup>2</sup>



**KÖSTER**  
Bikuthan 1C

30 l hobbock  
(W 251 030)

Single component, solvent-free, stable, elastic, polymer modified bitumen thick film sealant with polystyrene light fillers. Suitable for spray application. Resistant against pressurized water, bridges cracks up to 5 mm. For waterproofing construction members in ground contact such as basements.

**Consumption:** Approx. 4,5 - 6,8 l/m<sup>2</sup>



**KÖSTER**  
Bikuthan 2C

28 l hobbock;  
liquid component 25 l;  
powder component 3.75 kg  
(W 250 028)

Solvent-free, crack-bridging, stable, two-component, polymer modified bitumen thick film sealant with polystyrene light fillers in accordance with DIN EN 18533. Approved by the building authorities. For waterproofing construction members in ground contact such as basements.

**Consumption:** Approx. 4 - 5 l/m<sup>2</sup>



**KÖSTER**  
Deuxan 2C

Two-component, compression-resistant, elastic, polymer modified, fibrated bitumen thick film sealant (PMBC) for the secure waterproofing of buildings in accordance with DIN 18533, such as basements. Resistant to pressurized water, approved by the building authorities. Radonproof.



External basement waterproofing



Floor slab waterproofing



Waterproofing against Radon



Can be spray applied

**Article No.:**  
W 252 032

**Consumption:**  
Approx. 4 - 6 kg / m<sup>2</sup>

**Packaging:**  
32 kg hobbock;  
liquid component 24 kg,  
powder component 8 kg

**KÖSTER**  
KBE Liquid Film

6 kg bucket  
(W 245 006)

24 kg bucket  
(W 245 024)

Solvent-free, highly elastic bitumen / rubber based sealing compound. For high quality external waterproofing of construction members in ground contact, such as basements. Also suitable for waterproofing under protective screed, crack bridging waterproofing of concrete floors, flat roofs and façades. Elongation: > 900 %.

**Consumption:** Waterproofing: Approx. 1.0 kg / m<sup>2</sup> / mm per coat; Primer: Approx. 200 g / m<sup>2</sup> in one coat mixed 1:1 with water; Seam sealing: Approx. 1.0 kg / m<sup>2</sup> / mm layer thickness.



**KÖSTER**  
KD 1 Base

7.5 kg bucket  
(W 211 007)

15 kg bucket  
(W 211 015)

Fast setting, mineral sealing slurry with high resistance against aggressive ground moisture and pressurized water. Used in combination with KÖSTER KD 2 Blitz Powder and KÖSTER KD 3 Sealer for the negative side waterproofing of mineral surfaces such as in internal basement waterproofing.

**Consumption:** Approx. 1.5 - 2.5 kg/m<sup>2</sup>



**KÖSTER**  
21



A multi purpose waterproofing, 2 component, solvent-free, liquid applied, elastic and crack bridging material. Due to its UV stability it is suitable for indoor and outdoor use. The white color reflects sunlight and reduces building surface temperatures. The fast curing coating is highly flexible, resistant to occasional foot traffic, aging, hydrolysis, UV-rays, frost, and salt.



Liquid roof waterproofing



Waterproofing balconies / terrace



Waterproofing on bitumen



Foundation waterproofing

**Article No.:**  
W 210 020

**Consumption:**  
Approx. 2.5 - 3.0 kg / m<sup>2</sup>

**Packaging:**  
20 kg Combipackage;  
1 x 8 kg Powder;  
2 x 6 kg Liquid

**KÖSTER**  
KD System

7.5 kg KÖSTER KD1;  
7.5 kg KÖSTER KD2;  
3 kg KÖSTER KD3;  
KÖSTER Brush for liquids;  
KÖSTER Brush for slurries  
(W 219 018)

System package for the negative side waterproofing of mineral surfaces against pressurized water such as in internal basement waterproofing. The KÖSTER KD System stops flowing water and forms a permanent waterproofing layer on masonry and concrete. All components of the KÖSTER KD System combined in one package.

**Consumption:** KÖSTER KD 1 Base: approx. 1.5 - 2.5 kg / m<sup>2</sup>;  
KÖSTER KD 2 Blitz Powder: approx. 1.0 - 2.0 kg / m<sup>2</sup>; KÖSTER KD 3 Sealer: approx. 0.5 kg / m<sup>2</sup>



**KÖSTER**  
MS-Flexfolie

2 x 4 kg tubular bags  
(W 200 008)  
25 kg bucket  
(W 200 025)

KÖSTER MS-Flexfolie is a single component, solvent free, highly elastic, crack bridging waterproofing material based on MS Polymer technology. KÖSTER MS-Flexfolie does not contain isocyanates, is quickly resistant to rain as well as occasional foot traffic, aging, hydrolysis, UV-rays, salts, and frost.

**Consumption:** Approx. 1.5 – 2.5 kg / m<sup>2</sup>



**KÖSTER**  
NB 2 White

25 kg bag  
(W 222 025)

White mineral coating for the waterproofing of mineral substrates. Waterproofing layers made of KÖSTER NB 2 are resistant to pressurized water, and possess a high pressure and abrasion resistance. For area waterproofing of new construction and restoration, for internal and external basement waterproofing.

**Consumption:** Approx. 3 - 5 kg/m<sup>2</sup>



**KÖSTER**  
KD 3 Sealer

6 kg jerrycan  
(W 313 006)  
12 kg jerrycan  
(W 313 012)

Low viscosity silicifying liquid. The active ingredients penetrate deeply into the substrate and form water insoluble compounds. The pores are plugged and permanently waterproofed through continuing crystallization. Used in combination with KÖSTER KD 1 Base and KÖSTER KD 2 Blitz Powder for the negative side waterproofing of mineral surfaces such as for internal basement waterproofing.

**Consumption:** Approx. 0.5 kg/m<sup>2</sup>



**KÖSTER**  
NB1 Grey



Watertight mineral waterproofing with subsequently crystallizing agents. Suitable for positive side and negative side waterproofing. Possesses excellent pressure and abrasion resistance, as well as chemical and sulphate resistance. Approved for potable water. For area waterproofing in new construction and restoration, e.g. waterproofing of basements and tanks.



Internal basement waterproofing



Civil engineering or urban planning



Infrastructure



Water tanks

Article No.:  
W 221 025

Consumption:  
Approx. 2 - 4 kg / m<sup>2</sup>

Packaging:  
25 kg bag



### KÖSTER Flex Fabric

50 m roll  
(W 450 100)

Highly flexible, tear-resistant fabric for the reinforcement of thin-layer waterproofing, especially in areas prone to cracking, penetrations or wall / floor connections. Finely woven, synthetic.

**Particularly suitable for:** KÖSTER Dachflex, KÖSTER BD 50 and KÖSTER NB Elastic Grey, KÖSTER NB Elastic White, KÖSTER 21. 1 m x 50 m, 50 m<sup>2</sup>.



### KÖSTER Glass Fiber Mesh

33 cm x 100 m, 100 m roll  
(W 411 033)  
100 cm x 100 m, 100 m<sup>2</sup> roll  
(W 411 100)

Highly tear resistant mesh for the reinforcement of waterproofing layers especially in the case of pressurized water, areas in danger of cracking as well as connections, wall / floor junctions and fillets. Resistant to dislocation, alkalis, plasticizer-free.

**Particularly suitable for:** KÖSTER KBE Liquid Film, KÖSTER Bikuthan 1C and KÖSTER Bikuthan 2C, KÖSTER Deuxan 2C, KÖSTER BD 50, KÖSTER NB 4000, KÖSTER NB Elastic, KÖSTER 21.



### KÖSTER Superfleece

50 m roll, width 10 cm  
(W 412 010)  
50 m roll, width 30 cm  
(W 412 030)

High strength polyester nonwoven reinforcement fabric for liquid waterproofing products such as KÖSTER MS-Flexfolie, KÖSTER KBE Liquid Film, and KÖSTER BD 50. To reinforce waterproofing in corners and other areas prone to cracking and to connect to gutters, gullies, and similar custom details. 10 cm and 105 cm wide, 50 m roll.

**Consumption:** 1 m per linear m



radonproof



## KÖSTER NB 4000



A polymer modified mineral coating for waterproofing building structures inside and outside. It is resistant to rain soon after its application and can be exposed to pressurized water after 24 hours of curing time. KÖSTER NB 4000 is elastic and crack bridging and suitable for waterproofing in areas such as basements, foundation slabs, masonry, and the repair of defective waterproofing layers.



External basement waterproofing



Moist substrates



Precast concrete production



Base waterproofing

**Article No.:**  
W 236 025

**Consumption:**  
Approx. 2.4 - 4.8 kg / m<sup>2</sup>

**Packaging:**  
25 kg combipackage;  
2 x 7.2 kg powder component,  
2 x 5.3 kg liquid component

**KÖSTER**  
Repair Mortar

25 kg bag  
(W 530 025)

Hydrophobic, pressurized water resistant mortar with special bonding agents suitable for fillets, repairs and as a barrier-plaster. When mixed with KÖSTER SB Bonding Emulsion it becomes a PCC Mortar.

**Consumption:** Approx. 1.8 kg / l void



**KÖSTER**  
Repair Mortar Plus

25 kg bag  
(W 532 025)

Slightly expanding, hydrophobic, fast setting repair mortar which is resistant to pressurized water. When mixed with KÖSTER SB Bonding Emulsion it becomes a PCC Mortar.

**Consumption:** Approx. 1.8 kg / l void; approx. 2.5 kg per meter of fillet



**KÖSTER**  
Waterstop

15 kg bucket  
(W 540 015)

Fast setting, slightly expanding plug and repair mortar. A strong-bond between existing substrate and the mortar is achieved. Suitable to permanently plug active water leakages.

**Consumption:** Approx. 2 kg / l void



**KÖSTER**  
WP Mortar

25 kg bag  
(W 534 025)

Watertight, trowel applicable, fast setting mineral mortar for reprofiling surfaces and resistant to pressurized water when applied in a layer thickness of 4 mm. It cures quickly and is characterized by high pressure and abrasion resistance, high chemical resistance, and resistant against salts in the substrate.

**Consumption:** Approx. 1.8 kg / l void, 18 kg / m<sup>2</sup> per cm layer thickness



**KÖSTER**  
KD 2 Blitz Powder



Highly reactive powder with an extremely short setting time. Active leakages and weeping water can be stopped within a few seconds simply by using the dry powder. Used in combination with KÖSTER KD 1 Base and KÖSTER KD 3 Sealer for the negative side waterproofing of mineral surfaces such as for internal basement waterproofing.



Active leaks...



...stopped...



...in seconds!

**Article No.:**  
W 512 007  
W 512 015

**Consumption:**  
Approx. 1 - 2 kg / m<sup>2</sup>

**Packaging:**  
7.5 kg bucket  
15 kg bucket

**KÖSTER**  
NB 1 Flex  
9 kg jerrycan  
(W 721 008)

Ready-mixed liquid for KÖSTER NB sealing slurries. The latex based dispersion KÖSTER NB 1 Flex has a plastifying effect, improves the adhesion to the substrate and prevents the premature drying out of the fresh slurry.

**Consumption:** Approx. 9 kg for 25 kg NB 1 Grey and NB 2 White



**KÖSTER**  
NB 4000 Spray  
Additive  
250 g bottle  
(W 736 250)

Liquid additive for KÖSTER NB 4000 for improving sprayability as well as other application characteristics.

**Consumption:** max. 1 bottle of 250 g per 25 kg KÖSTER NB 4000



**KÖSTER**  
SB Bonding Emulsion  
5 kg jerrycan  
(W 710 005)  
10 kg jerrycan  
(W 710 010)

Multi-purpose liquid plasticizing dispersion for use with all cement based mortars, plasters and sealing slurries. Solvent free, plasticizer and filler free. The product provides a plastifying effect, increases the elasticity and reduces the water absorption of mineral systems. It is waterproof after full cure. Typical field of application: as an additive for waterproofing with NB 1 Grey.

**Consumption:** Replaces 5 - 33% of mixing water



**KÖSTER**  
Butyl Fix-Tape Fleece  
10 m roll  
(W 815 015 F)

Cold applied self-adhesive tape for sealing the upper edges of KÖSTER KSK sealing membranes. KÖSTER Butyl Fix-Tape Fleece can be plastered over.

KÖSTER Butyl Fix-Tape Fleece is 1.5 mm thick with a separating backing paper on the bottom side. The material is highly tear resistant, immediately waterproof and can be plastered over due to its fleece-laminated upper side.

1.5 mm x 150 mm.



**KÖSTER**  
ECB 1.5 U S  
1.5 mm x 2.10 m x 20 m  
(RE 815 210 U S)

KÖSTER ECB Membranes are made of a mixture of Ethylene Copolymer and a special bitumen. KÖSTER ECB U S Membranes are especially designed for the waterproofing of below ground building structures and are delivered with an aluminium foil signal layer laminated on top.



**KÖSTER**  
ECB 2.0 U S  
2.0 mm x 2.10 m x 20 m  
(RE 820 210 U S)

KÖSTER ECB Membranes are made of a mixture of Ethylene Copolymer and a special bitumen. KÖSTER ECB U S Membranes are especially designed for the waterproofing of below ground building structures and are delivered with an aluminium foil signal layer laminated on top.



**KÖSTER**  
Fix-Tape 10 ALU  
10 m roll  
(W 810 015 AL)

Self-adhesive sealing tape for the waterproofing of areas such as wall / floor junctions, wall and roof penetrations or for the repair of leaking gutters and downspouts.

KÖSTER Fix-Tape 10 ALU is 1 mm thick, rubber / bitumen based with an aluminium foil laminated on the top-side. 1 mm x 150 mm.





**KÖSTER**  
Fix-Tape 15 SY

20 m roll  
(W 815 020)

Cold applied self adhesive rubber / bitumen based waterproofing tape for sealing facade areas and windproofing window connections. Applicable between +5°C and +30°C. Highly flexible, crack bridging, immediately water and rainproof. Double laminated with a highly tear resistant polyethylene foil. Material thickness 1.5 mm, available in 200 mm width.



**KÖSTER**  
KSK ALU 15

1.5 mm x 0.96 m x 20 m,  
19.2 m<sup>2</sup> roll  
(W 815 096 AL)

Cold applied self-adhesive rubber / bitumen sealing membrane for the waterproofing of small, weather exposed areas such as roofs, garages or balconies. Applicable between + 12 °C and + 35 °C.

KÖSTER KSK ALU 15 is laminated with a reinforced aluminium foil on the top side. It does not require hot air or propane gas welding for its application, is vapor tight, waterproof, weather and UV resistant. 1 roll = 19,2 m<sup>2</sup>



**KÖSTER**  
KSK SY 15

1.5 mm x 1.05 m x 20 m,  
21 m<sup>2</sup> roll  
(W 815 105)

Cold applied self-adhesive rubber / bitumen waterproofing membrane according to the DIN EN 18533. Suitable for application from + 5 °C to + 30 °C. Fields of application include basements, foundation plates, balconies, terraces or on polystyrene elements.

KÖSTER KSK SY 15 membranes do not require hot air or propane gas welding for application. It is highly flexible, immediately waterproof, crack bridging and resistant to driving rain. Suitable for application even on cold substrates. Radonproof. With a double laminated, highly tear-resistant polyethylene foil on top. 1 roll = 21 m<sup>2</sup>



**KÖSTER**  
TPO Aqua 1.5

1.5 mm x 1.50 m x 20 m,  
30 sqm roll  
(W 815 150 U W A)

Waterproofing membrane for drinking water structures. KÖSTER TPO Aqua complies with hygienic requirements for potable water surroundings according to the German DVGW Worksheet W 270 and the KTW guideline. The TPO based membrane is highly tear resistant and provides very high flexibility, so that even large cracks are securely bridged. The membrane is installed by mechanical fastening, requiring little or no substrate preparation. For uses in Drinking water reservoirs, tanks, water retention structures, fish ponds, etc.



**Good to know:**

**Waterproofing against Radon**



The European Guideline regarding radiation protection stipulates that a reference level of 300 Bq / m<sup>3</sup> air caused by the noble gas Radon must not be exceeded. Increased concentration of radioactivity can entail severe health issues. Therefore, proofing buildings against Radon is an important measure to ensure respective protection. Products like **KÖSTER NB 4000**, **KÖSTER Deuxan 2C**, and **KÖSTER KSK SY 15** prevent the noble gas to diffuse through the soil into the structure, where it would negatively affect the air. Restoration measures with these products will meet the specifications made by law and prevent health risks.

**KÖSTER**  
TPO Aqua 2.5 Geo  
roll  
(RT 825 210 F)

Special homogeneous geomembrane for hydraulic works such as dams, canals and artificial lakes. This 2.5 mm FPO/TPO-PE highly UV resistance membrane is highly tear resistant and provides very high flexibility. The back-side with the 500g polyester insures an outstanding dimension stability and impact resistance.



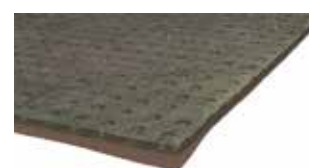
**KÖSTER**  
SD Protection and  
Drainage Sheet  
3-250  
roll  
(W 903 030)

Black HD-PE based notched protection board which combines 3 functions in one product: (1) mechanical protection of the waterproofing layer (e.g. when backfilling the construction pit) according to DIN 18533, (2) decoupling of the waterproofing layer from any ground movement, (3) the hollow core leads seepage and backwater safely to the drainage. 2 m x 15 m, 30 m<sup>2</sup>.



**KÖSTER**  
SD Protection and  
Drainage Sheet  
3-400  
roll  
(W 901 030)

Black HD-PE based notched protection board which combines 3 functions in one product: (1) mechanical protection of the waterproofing layer (e.g. when backfilling the construction pit) according to the DIN EN 18533, (2) decoupling of the waterproofing layer from any ground movement, (3) the hollow core leads seepage and backwater safely to the drainage. 2 m x 15 m, 30 m<sup>2</sup>.



**KÖSTER**  
Brush for Liquids  
piece  
(W 912 001)

Special brush for the application of liquid materials, e.g. KÖSTER Dachflex, KÖSTER KD 3, etc.



**KÖSTER**  
Brush for slurries  
piece  
(W 913 001)

Special brush with waved bristles for the application of materials with a paste-like consistency, e. g. KÖSTER NB Sealing Slurries, KÖSTER KD 1, etc.



**KÖSTER**  
Peristaltic Pump  
piece  
(W 978 001)

Electrical pump for spraying liquid and pasty, mineral-, water-, or bitumen based materials such as 1 and 2 component polymer modified bitumen thick film sealants, elastic and rigid waterproofing slurries, liquid membranes, and mortars.



**KÖSTER**  
Roofing Nails  
piece  
(W 981 001)

For mechanically fixing cold applied self-adhesive waterproofing membranes, 3.1 x 50 mm



**KÖSTER**  
SD Edge Profile  
piece  
(W 970 001)

Finishing profile for protection and drainage sheets. (black, t: 12 mm, l: 2 m, 11 holes, profile height: 82 mm).



**KÖSTER**  
SD Fixing Element

100 pieces  
(W 971 001)

Steel nails and mounting heads for the fixing of protection and drainage sheets.



**KÖSTER**  
Service Box

1 piece  
(W 979 001)

Set of spare parts for the KÖSTER Peristaltic Pump.



**Good to know:**

**Protecting the waterproofing layer**



Backfilling of the construction pit and settlement of the ground over time are frequent sources of damage to the waterproofing layer. Usually the material used to backfill the construction pit does not consist of clean sand but contains coarse aggregates. During backfilling, these aggregates can be pushed into the waterproofing layer and damage it. As a result, the installation of a protective layer is essential. Protective layers ideally combine three functions: mechanical protection, drainage, and a decoupling or gliding layer. The KÖSTER SD Sheet 3-400 consists of three layers. The mechanical protection is provided by the main layer, a HDPE dimple sheet. Facing the soil, a fleece is attached to the dimples of the dimple sheet in order to maintain the drainage function. The third layer on the backside of the dimple sheet facing the waterproofing layer is a LDPE foil. This gliding layer between dimple sheet and waterproofing layer prevents damages due to backfilling or settling of the ground.

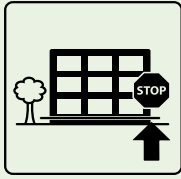




Restoration of masonry  
Restoration plasters, horizontal barriers,  
anti mold systems



## Horizontal barriers for restoration walls



Rising moisture in masonry over a longer period of time can lead to considerable damages. An indication of these damages is salt efflorescence, flaking plaster, moist wallpaper and the formation of mold which can be harmful. KÖSTER horizontal barriers stop rising moisture in new construction and existing buildings to protect the valuable building substance.

### Horizontal barriers with pressureless injection system KÖSTER Crisin 76

- 1 **Accessories**  
KÖSTER Capillary Rods
- 2 **Accessories**  
KÖSTER Suction Angle
- 3 **Cross section waterproofing**  
KÖSTER Crisin 76
- 4 **Primer**  
KÖSTER Polysil TG 500
- 5 **Levelling**  
KÖSTER Repair Mortar Plus
- 6 **Plaster key**  
KÖSTER Restoration Plaster Key
- 7 **Plaster**  
KÖSTER Restoration Plaster Grey  
KÖSTER Restoration Plaster Grey/Light
- 8 **Fine plaster**  
KÖSTER Fine Plaster
- 9 **Paint**  
KÖSTER Silicone Paint White



Rising (or “wicking”) moisture is among the most frequently encountered causes of damage in masonry walls. The results are clearly identifiable through the spalling of plaster, damaged joints and bricks, and also through salt efflorescence and algae growth. Damage from rising moisture can be avoided by the installation of a horizontal barrier.

The easiest and most successful KÖSTER system to install a horizontal barrier in existing walls is the KÖSTER Suction Angle System with KÖSTER Crisin 76. KÖSTER Crisin 76 is a very thin fluid resin which penetrates into the smallest capillaries in the building material, stops the capillary action permanently and creates a hydrophobizing effect within the structure.

Boreholes are drilled regularly spaced depending on the wall thickness. KÖSTER Crisin 76 is injected without pressure into the wall via the KÖSTER Suction Angle and the KÖSTER Capillary Rod which acts as a wick. The pressureless system uses the same capillary action which is the cause

for rising damp. Thereby, rising moisture is stopped with the aid of its cause. The big advantage of the KÖSTER Capillary Rod is that it doesn't waste material in cracks or voids. Only where the rod touches the wall of the borehole will the material be released.

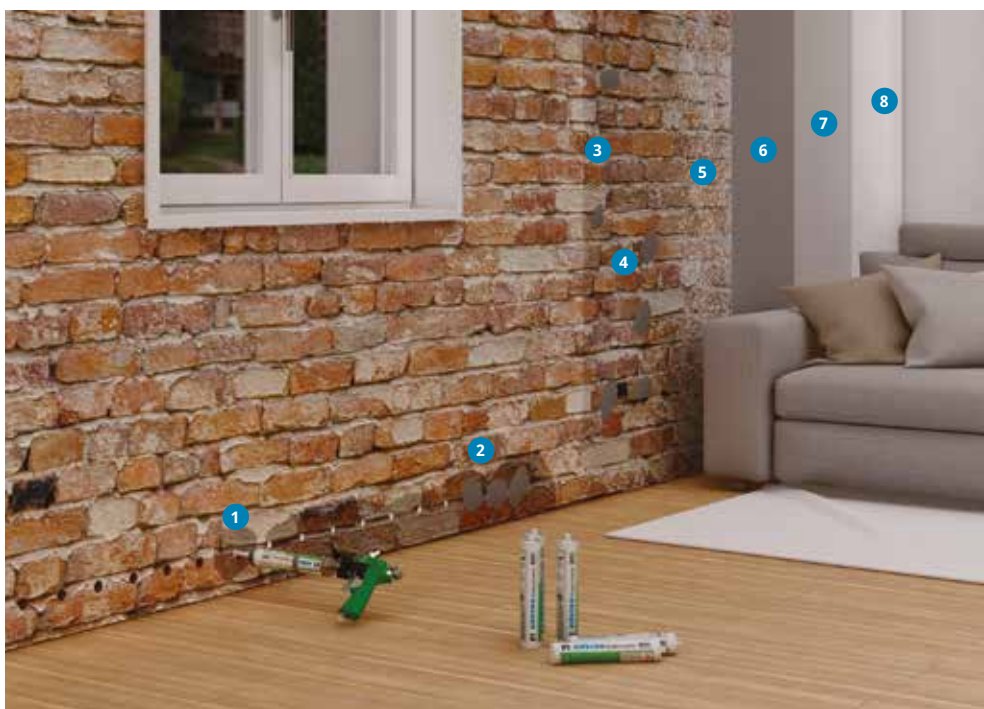
In some cases, such as in less moist walls, KÖSTER Mautrol Liquid Sealant can also be applied. Before the application an analyses of the moisture content and the salt content must be carried out.

KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a smooth decorative surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paint such as KÖSTER Silicone Paint White.

Always adhere to the specifications in the respective Technical Guidelines.

In cases where damage is caused by rising moisture, the old plaster has to be removed from the wall. After the installation of the horizontal barrier, the application of KÖSTER Restoration Plaster is required. KÖSTER Restoration Plaster allows the masonry to dry without damage. KÖSTER Restoration Plasters are open to vapor diffusion and are hydrophobic. Salts remaining in the wall are absorbed by the KÖSTER Restoration Plasters so that salt doesn't effloresce to the surface and doesn't cause damage to the plaster or paint.

## Horizontal barriers with pressureless injection system KÖSTER Crisin Cream



- 1 Cross section waterproofing  
KÖSTER Crisin Cream
- 2 Closing holes  
KÖSTER KB-Fix 5
- 3 Primer  
KÖSTER Polysil TG 500
- 4 Levelling  
KÖSTER Repair Mortar
- 5 Plaster key  
KÖSTER Restoration Plaster Key
- 6 Plaster  
KÖSTER Restoration Plaster White
- 7 Fine plaster  
KÖSTER Fine Plaster
- 8 Paint  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White

Rising (or “wicking”) moisture is among the most frequently encountered causes of damage in masonry walls. The results are clearly identifiable through the spalling of plaster, damaged joints and bricks, and also through salt efflorescence and algae growth. Damage from rising moisture can be avoided by the installation of a horizontal barrier.

KÖSTER Crisin Cream is a very thin resin which penetrates into the smallest capillaries in the building material, stops the capillary action permanently and creates a hydrophobizing effect. KÖSTER Crisin Cream can be applied from inside and/or from the outside of the building. It is suitable in cases of high degrees of moisture penetration (95% +/- 5% saturation) and with all degrees of salt contamination.

In cases where damage is caused by rising moisture, the old plaster has to be removed from the wall. After the installation of the horizontal barrier, the application of

KÖSTER Restoration Plaster is required. The KÖSTER Restoration Plaster allows the masonry to dry without damage. KÖSTER Restoration Plasters are open to vapor diffusion and are hydrophobic. Salts remaining in the wall are absorbed by the KÖSTER Restoration Plasters so that salt doesn't effloresce to the surface and doesn't cause damage to the plaster or paint.

KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a smooth decorative surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paint such as KÖSTER Silicone Paint White.

Always adhere to the specifications in the respective Technical Guidelines.



## Horizontal barriers with pressure injection for voidless masonry

- 1 Installing the packers**  
KÖSTER Superpacker  
13 mm x 85 mm CH
- 2 Installing the horizontal barrier via injection**  
KÖSTER Mautrol 2C  
KÖSTER Mautrol Flex 2C
- 3 Pump**  
KÖSTER 1C Injection Pump
- 4 Closing holes**  
KÖSTER KB-Fix 5
- 5 Primer**  
KÖSTER Polysil TG 500
- 6 Levelling**  
KÖSTER Repair Mortar
- 7 Plaster key**  
KÖSTER Restoration  
Plaster Key
- 8 Plaster**  
KÖSTER Restoration  
Plaster White
- 9 Fine plaster**  
KÖSTER Fine Plaster
- 10 Paint**  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White



Fast and effective: The installation of a horizontal barrier via pressurized injection. When it is possible to ensure that the wall is free of cracks or voids, the horizontal barrier can be installed with a pressurized injection system. Cracks and voids which become apparent during the drilling process can be filled. After filling, the borehole is re-drilled and the injection process can proceed.

Suitable injection liquids for this kind of application are KÖSTER Mautrol 2C and KÖSTER Mautrol Flex 2C. Two component materials have a faster setting time, which causes a quicker blockage of the capillaries. The injection can be carried out with the electrical 1C injection pump KÖSTER 1C Injection Pump.

In cases where damage is caused by rising moisture, the old plaster has to be removed from the wall. After the installation of the horizontal barrier, the

application of KÖSTER Restoration Plaster is required. The KÖSTER Restoration Plaster allows the masonry to dry without damage. KÖSTER Restoration plasters are open to vapor diffusion and are hydrophobic. Salts remaining in the wall are absorbed by the KÖSTER Restoration Plasters so that salt doesn't effloresce to the surface and doesn't cause damage to the plaster or paint.

KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a smooth decorative surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paint such as KÖSTER Silicone Paint White.

Always adhere to the specifications in the respective Technical Guidelines.

## Horizontal barriers with self adhesive tape (New Construction)



1 Horizontal barriers for walls  
KÖSTER Fix-Tape 15 SY

A horizontal waterproofing beneath walls in new construction is required to avoid rising moisture due to capillary action in masonry or concrete. For this application many KÖSTER products can be used. KÖSTER Fix-

Tape 15 SY is a self adhesive waterproofing tape which is easy and fast to apply.

Always adhere to the specifications in the respective Technical Guidelines.

## Horizontal barriers with mineral systems (New Construction)



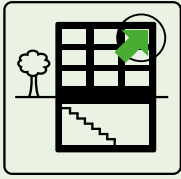
1 Horizontal barriers for Waterproofing Layer (different options)  
KÖSTER NB 1 Grey  
KÖSTER NB 4000  
KÖSTER NB Elastic Grey

2 Installing fillets  
KÖSTER Repair Mortar Plus

Horizontal Barriers are required to stop long-term damage caused by rising damp, salts, and efflorescence. Compared to post-installed systems, damp proof courses in new construction are economical and effective. Not

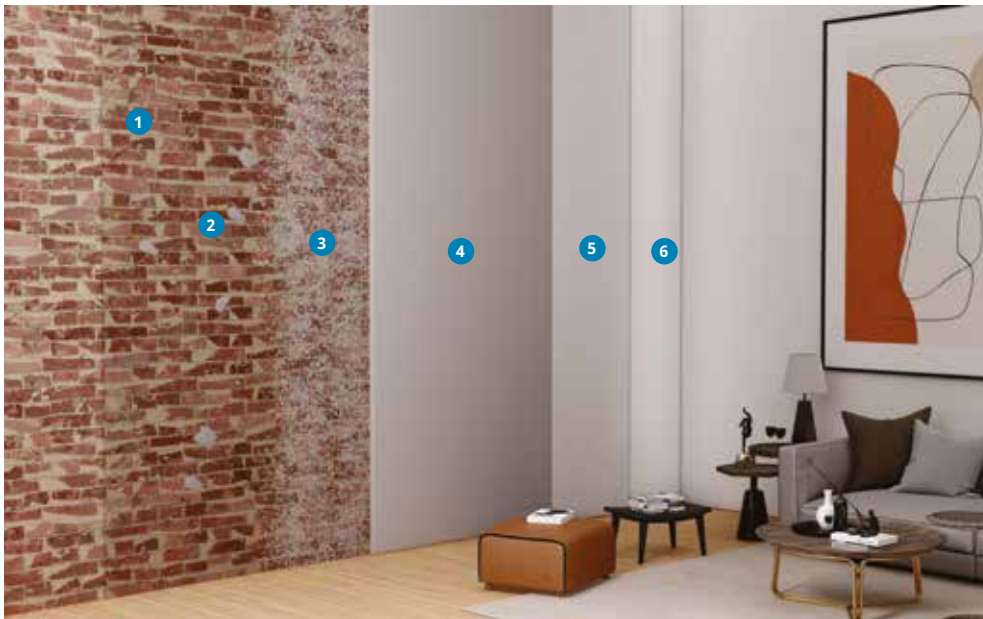
only do these materials have to be waterproof, but they have to resist the pressure of the building. KÖSTER provides both elastic and rigid waterproofing products for this field of application.

## Restoration plasters



Mold in living areas caused by moisture penetration and thermal bridges results in extensive health damage because the mold releases its spores into the air which is then inhaled by the inhabitants. A special Anti Mold System – which functions on a purely physical basis and which is free of fungicidal toxins provides a permanent protection because mold can not grow on this coating.

## Restoration of masonry with restoration plasters



- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Levelling**  
KÖSTER Repair Mortar
- 3 **Plaster key**  
KÖSTER Restoration Plaster Key
- 4 **Plaster**  
KÖSTER Restoration Plaster White
- 5 **Fine plaster**  
KÖSTER Fine Plaster
- 6 **Paint**  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White

When masonry is just slightly moist, often a restoration with KÖSTER Restoration Plasters is enough to dry the wall and stop damage from occurring. In this case, the old plaster has to be removed from the wall and the joints raked out. All loose particles have to be removed to provide a stable and absorptive, openpored surface. Priming with KÖSTER Polysil TG 500 optimally prepares the masonry for the application of KÖSTER Restoration Plaster. KÖSTER Polysil TG 500 hardens the substrate as well as reduces the mobility of salts. Masonry repairs are carried out with KÖSTER Repair Mortar.

Before the application of the main plaster coat, KÖSTER Restoration Plaster Key is applied to provide a larger surface area and to ensure an optimal bond to the substrate. The KÖSTER Restoration Plaster allows the masonry to dry without damage.

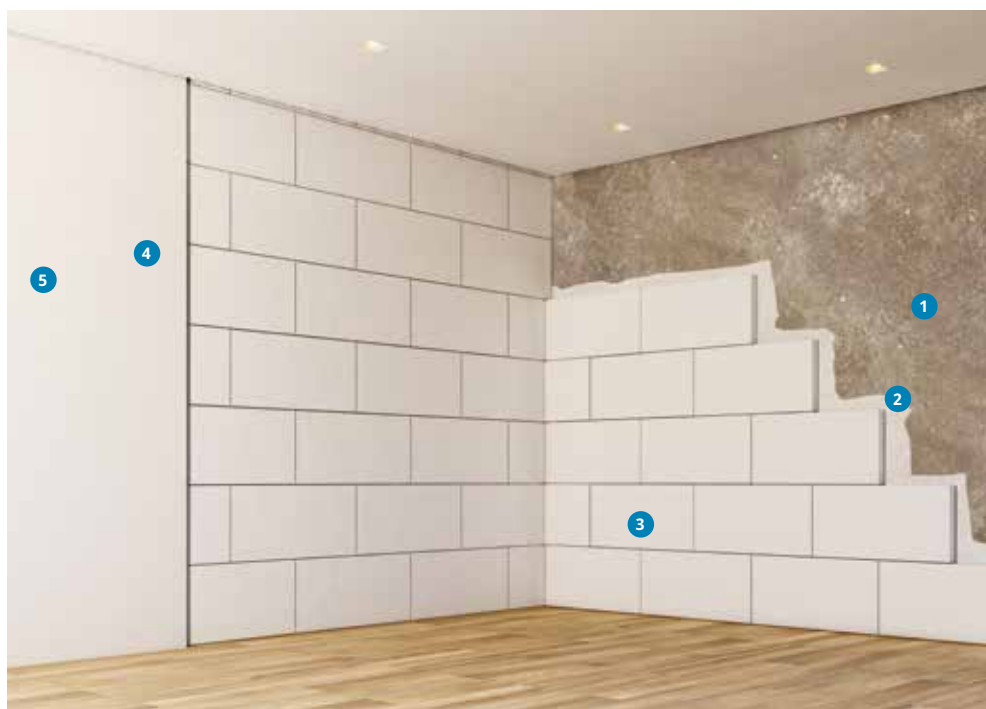
KÖSTER Restoration Plasters are open to vapor diffusion and are hydrophobic. Salts remaining in the wall are absorbed by the KÖSTER Restoration Plasters so that salt doesn't effloresce to the surface and doesn't cause damage to the plaster or paint.

KÖSTER Restoration Plasters are available in different varieties (grey, white, fast and light). KÖSTER Restoration Plaster White is often used in older buildings without subsequent painting. KÖSTER Fine Plaster creates a smooth decorative surface and can be applied when desired to meet architectural goals. KÖSTER Restoration Plasters can only be painted over with breathable (open to vapor diffusion) paint such as KÖSTER Silicone Paint White.

Always adhere to the specifications in the respective Technical Guidelines.



## Hydrosilicate system for mold remediation and prevention on interior surfaces



- 1 **Surface preparation**  
KÖSTER Polysil TG 500
- 2 **Adhesive**  
KÖSTER Hydrosilicate Adhesive SK
- 3 **Boards**  
KÖSTER Hydrosilicate Board  
KÖSTER Hydrosilicate Tapered Board
- 4 **Fine plaster**  
KÖSTER Hydrosilicate Adhesive SK
- 5 **Paint**  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White

Due to health reasons alone, living and storage spaces should be free of mold. The KÖSTER Hydrosilicate Board System fights mold without the use of toxins. Based on a pure physical functionality, KÖSTER Hydrosilicate Boards stops mold in its tracks. Due to its thermal insulating effect, it acts as a moisture control, helps reduce the formation of condensation, and provides a pleasant living environment. The presence of high alkalinity and a permanent dry surface prevent the undesirable growth of mold.

Old wall coverings and bond inhibiting substances such as wallpaper, gypsum residues, paint or insulation must be completely removed. Absorbent substrates are primed with KÖSTER Polysil TG 500. Irregularities and holes in the surface smaller than 5 mm can be levelled with KÖSTER Hydrosilicate Adhesive SK. Larger

surface defects can be repaired using KÖSTER Repair Mortar mixed with 20% KÖSTER SB Bonding Emulsion added to the mixing water.

Apply the system only after the substrate leveling has completely cured. For gluing, KÖSTER Hydrosilicate Adhesive SK is fully and completely applied to the substrate. The KÖSTER Hydrosilicate Boards are cut to the desired size using a hand saw and are pressed to the wall. After the board has been installed, a bead of KÖSTER Hydrosilicate Adhesive SK is applied along edges of the board to make sure that the joints are fully filled. Subsequently, the whole area is plastered with a layer of KÖSTER Hydrosilicate Adhesive SK.

All successive paints must be open to vapor diffusion, such as KÖSTER Silicone Paint White. Always adhere to the specifications in the respective Technical Data Sheets.

## KÖSTER Hydrosilicate Adhesive SK

20 kg bag  
(M 170 020)

A single component mortar for the gluing of KÖSTER Hydrosilicate Boards. KÖSTER Hydrosilicate Adhesive SK is also used for gluing the butted boards and as a spackle / plaster for the installed boards.

**Consumption:** Approx. 3 kg / m<sup>2</sup> (depending on the substrate); Approx. 1.7 kg / m<sup>2</sup> as spackle per mm layer thickness



## KÖSTER Restoration Plaster Key

25 kg bag  
(M 154 025)

Fast, coarse plaster key with polymer additives for the substrate preparation of KÖSTER Restoration Plasters. Very good bonding also on very moist and highly salt burdened substrates.

**Consumption:** Approx. 4 - 6 kg / m<sup>2</sup>



## KÖSTER Crisin Cream

310 ml cartridge  
(M 278 310)

12 x 600 ml tubular bags  
(M 278 600)

Injection cream based on resin / silane against rising damp (wicking moisture). KÖSTER Crisin Cream is resistant against any moisture / salt content.

**Consumption:** 12 cm wall thickness: approx. 140 ml / m;  
36 cm wall thickness: approx. 510 ml / m



## KÖSTER Polysil TG 500



A primer for mineral substrates before waterproofing with cementitious waterproofing slurries. In case of masonry restoration the product is used during substrate preparation for restoration plaster systems in order to harden the substrate and immobilize salts.

KÖSTER Polysil TG 500 is a low viscous, substrate solidifying, hydrophobizing combination product on a polymer / silicate basis for the protection of mineral substrates. On salt containing and moist substrates, it causes a reduction of the pore volume and thereby prevents the renewed formation of salt efflorescence.



Masonry primer



Concrete primer



Prevents salt efflorescence



Strengthens substrate

**Article No.:**  
M 111 001

**Consumption:**  
Approx. 0.1 - 0.25 kg/m<sup>2</sup>  
depending on substrate,  
strongly absorbent substrates  
may require more

**Packaging:**  
1 kg bottle (M 110 001)  
10 kg Jerrycan (M 110 010)

**KÖSTER**  
Mautrol 2C

Combi package  
Comp. A 36 kg jerrycan  
Comp. B 3.5 kg jerrycan  
(M 261 039)

Combi package  
Comp. A 240 kg drum  
Comp. B 22 kg jerrycan  
(M 261 262)

Can be applied in strongly moisture penetrated construction members for waterproofing against rising damp (wicking moisture) without previous drying. The material is applied by pressurized injection. Together with KÖSTER Restoration Plasters, it is suitable for the restoration of masonry.

KÖSTER Mautrol 2C is a two-component, solvent-free, low viscous injection fluid by siliconates and esters and has a strengthening and solidifying effect on masonry.

**Consumption:** Approx. 0.15 kg/m per cm wall thickness



**KÖSTER**  
Mautrol Flex 2C

20 kg combipackaging  
Comp. A 10 kg jerrycan  
Comp. B 10 kg jerrycan  
(M 262 020)

2-component, solvent-free, acrylic based injection liquid against rising damp (wicking moisture). Suitable for application even in very damp construction members without prior drying.

**Consumption:** Approx. 0.2 kg/m per cm wall thickness



**KÖSTER**  
Crisin 76



Very low viscosity synthetic resin for waterproofing against rising damp (wicking moisture) even in case of high moisture and salt contents in the masonry. Due to its very low density and its surface tension which is considerably lower than that of water, KÖSTER Crisin 76 displaces water from the capillaries. After full cure, KÖSTER Crisin 76 remains elastic and does not rot. Density: 0.91 g/cm<sup>3</sup>, viscosity 15 mPa·s. KÖSTER Crisin 76 is resistant to all aggressive media which are usually encountered in masonry such as acids, alkalis and salts, during application as well as after full cure. Together with KÖSTER Restoration Plasters it is suitable for the restoration of masonry.



Simple installation



Also for thick walls



Successful over 25 years



Very low density

**Article No.:**  
M 279 005

**Consumption:**  
Guide value: 0.04 l / m per cm wall thickness

**Packaging:**  
5 l Jerrycan (M 279 005)  
10 l Jerrycan (M 279 010)  
30 l Jerrycan (M 279 030)  
200 ml cartridge (M 279 200)



**KÖSTER**  
Mautrol Liquid  
Sealant

12 kg jerrycan  
(M 241 012)

Very thin fluid, deeply penetrating silicifying concentrate for waterproofing against rising damp (wicking moisture) in masonry. It reacts to water insoluble and water-repelling compounds which also have a solidifying and strengthening effect on the building material. Together with KÖSTER NB 1 Grey and KÖSTER Restoration Plasters it is suitable for the restoration of masonry.

**Consumption:** Approx. 0.1 kg/m per cm wall thickness per m wall



**KÖSTER**  
Fine Plaster

25 kg bag  
(M 655 025)

Finely textured thin layer plaster for smooth decorative surfaces on Restoration Plasters and mineral based substrates. It can be applied in layer thicknesses from 2 – 5 mm and is felt-floatable. KÖSTER Fine Plaster is hydrophobic, water, weather, and frost resistant. The surface is finely structured, closed, and can be finished with paint or wallpaper.

**Consumption:** 1.4 kg / m<sup>2</sup> per mm layer thickness



**KÖSTER**  
Hydrosilicate Board

15 pcs. (3.42 m<sup>2</sup>)  
per package  
(600 x 380 x 25 mm)  
(M 670 025)

12 pcs. (2.74 m<sup>2</sup>)  
per package  
(600 x 380 x 50 mm)  
(M 670 050)

Hydrophobic, fiber free, breathable, mineral based boards for the renovation of mold infested mineral based interior building materials. KÖSTER Hydrosilicate boards have a high resistance to aging, are insulative and non-flammable. KÖSTER Hydrosilicate boards are free of synthetic additives, regulate moisture, reduce condensate formation, and promote a healthy indoor climate.

**Consumption:** 4.38 Boards / m<sup>2</sup>



**KÖSTER**  
Restoration Spackle

25 kg bag  
(M 656 025)

Light gray fine plaster, area and spot spackle and reinforcement mortar.

**Consumption:** 1.4 kg / m<sup>2</sup> / per mm layer thickness



**KÖSTER**  
Restoration  
Plaster Grey

25 kg bag  
(M 661 025)

Diffusion-open, salt-resistant restoration plaster. It can be applied manually or by machine. Very high porosity and hydrophobic properties. Prevents or reduces the formation of condensate. Free of light fillers. CE-Certification according to DIN EN 998-1.

**Consumption:** Approx. 12 kg/m<sup>2</sup> per cm layer thickness





**KÖSTER**  
Restoration Plaster  
Grey/Light

20 kg bag  
(M 666 020)

Grey, light, salt-resistant restoration plaster for the repair of moisture and salt burdened substrates with very good pumpability. Due to its porosity and hydrophobicity it allows the masonry to dry and desalinate while protecting the substrate from damage caused by salt crystallization.

**Consumption:** Approx. 8 kg / m<sup>2</sup> per cm layer thickness



**KÖSTER**  
Restoration Plaster  
White/Fast

25 kg bag  
(M 663 025)

White, fast setting restoration plaster. Diffusion-open, high compressive strength, water-repellent and ready for smoothing after 30 – 60 minutes. Prevents or reduces the formation of condensate. Free of light fillers. It is mainly used for small area waterproofing and restoration projects where a fast succession of work steps is necessary. CE-Certification according to DIN EN 998-1.

**Consumption:** Approx. 12 kg / m<sup>2</sup> per cm layer thickness



**KÖSTER**  
Restoration Plaster  
White/Light

20 kg bag  
(M 664 020)

White, water-repellent, hydrophobic, salt resistant restoration plaster open to water vapor diffusion with a low specific gravity, high porosity, and good pumpability. Prevents or reduces the formation of condensate. CE-Certification according to DIN EN 998-1.

**Consumption:** Approx. 8 kg / m<sup>2</sup> per cm layer thickness



**KÖSTER**  
Capillary Rods

length: 45 cm  
(M 963 045)

length: 90 cm  
(M 963 090)

For targeted installation of horizontal barriers against rising damp (wicking moisture) with the KÖSTER Suction Angle System.

The patented KÖSTER Capillary Rod releases the injection liquid evenly and directly to the masonry, effectively bridging cracks and voids. No material is wasted in cavities.



**KÖSTER**  
Restoration Plaster White



Diffusion-open, salt-resistant, high compressive strength, white restoration plaster with very high porosity and hydrophobicity. It prevents or reduces the formation of condensate. It can be applied manually or by machine.



Suitable for historical objects



On damp masonry



On salt burdened substrates



For external use as well

**Article No.:**  
M 662 025

**Consumption:**  
Approx. 12 kg / m<sup>2</sup>; per cm layer thickness

**Packaging:**  
25 kg bag

**KÖSTER**  
Suction Angle

piece  
(M 930 001)

Plastic angle for the pressureless and material saving installation of horizontal barriers against rising damp (wicking moisture) with the KÖSTER Suction Angle System. Re-usable.



**KÖSTER**  
Drill Hole Cleaner

piece  
(M 933 001)

For cleaning drill holes before inserting the KÖSTER Capillary Rods.



**KÖSTER**  
Extension for Crisin  
Cream Cartridge

piece  
(M 932 100)

Extension tube for the cartridge installation of KÖSTER Crisin Cream.

**Length:** 400 mm



**KÖSTER**  
Installation Tool for  
Capillary Rods

piece  
(M 931 001)

Assembly tool for an easy and fast installation of KÖSTER Capillary Rods.



**KÖSTER**  
Protimeter

piece  
(M 999 001)

For evaluating the surface moisture of construction members.







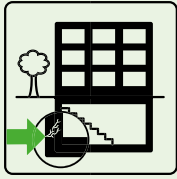
IN

## Injection systems

Crack injection, crack repair and special injection systems



## Crack injection and hose injection



Cracks in the building substance are structurally weak points. Additionally, penetrating water may cause damage and may reduce the usage and lifetime of the building. An elastic sealing or structural-bonding of the crack is required. In order to achieve this, the crack is filled over its entire course with a polyurethane or epoxy injection resin via pressure injection.

### Elastic and structural crack injection by pressure injection on dry or wet cracks

#### 1 Installing the packers

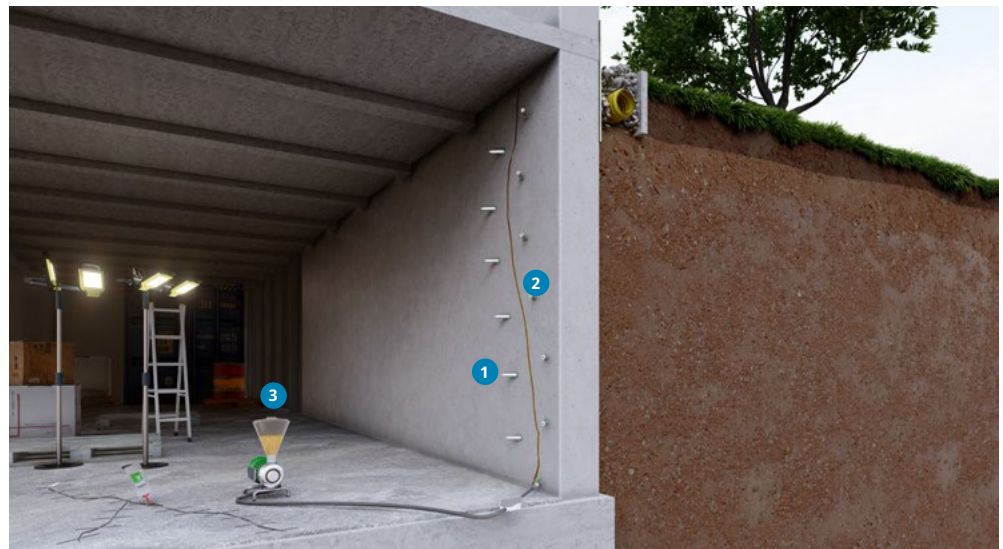
KÖSTER Packer  
13 mm x 130 mm CH  
KÖSTER Superpacker  
10 mm x 115 mm CH  
KÖSTER Superpacker  
10 mm x 85 mm CH  
KÖSTER Superpacker  
13 mm x 130 mm CH

#### 2 Injection Resin

KÖSTER 2 IN 1  
KÖSTER KB-Pox IN

#### 3 Pump

KÖSTER  
1C Injection Pump



Dry and wet cracks can be sealed permanently with KÖSTER injection materials. KÖSTER 2 IN 1 is the standard material for waterproofing cracks. The material forms a foam when it comes in contact with water displaces it from the crack. After stopping the water ingress, a second injection using the same material permanently and elastically waterproofs the crack.

KÖSTER KB Pox IN is a low viscous epoxy injection resin that can be used for structural re-bonding in dry or wet cracks.

KÖSTER IN 5 is a very low viscous polyurethane injection resin with a very long pot life. It is especially suitable for injection into very small and fine cracks.

KÖSTER Micro Grout 1C is a mineral injection material which is ideal to fill voids and cracks of medium width. The material has excellent adhesion properties even to damp

substrates. It also possesses a very high compressive strength after curing.

All KÖSTER injection resins are installed with the KÖSTER 1C Injection Pump via injection valves called "Packers" into the crack. Depending on the application, different packers are available. KÖSTER Impact Packers are installed very quickly and are recommended for low to medium pressure.

The KÖSTER Superpackers are used for all applications injecting from low to high pressure. KÖSTER One-Day-Site Packers have an extra one-way return valve. The bottom portion of the packer prevents the injection material from flowing back out of the wall, so that the upper part of the packer can be removed directly after injection and the borehole stays pressure sealed. The drill hole can be sealed immediately after the injection works.

Always adhere to the specifications in the respective Technical Guidelines.



## Pressure injection of water bearing cracks



### 1 Installing the packers

KÖSTER Packer  
13 mm x 130 mm CH  
KÖSTER Superpacker  
10 mm x 115 mm CH  
KÖSTER Superpacker  
10 mm x 85 mm CH  
KÖSTER Superpacker  
13 mm x 130 mm CH

### 2 Injection Resin

KÖSTER 2 IN 1  
KÖSTER IN 2  
KÖSTER IN 8

### 3 Pump

KÖSTER 1C Injection Pump

IN

KÖSTER 2 IN 1 is a broadly applicable solvent-free PU injection resin for dry and water bearing cracks. The specialty: KÖSTER 2 IN 1 forms an elastic foam when coming into contact with water which pushes the water out of the crack. If no water is present, the material forms an elastic solid body resin and permanently seals the crack.

Alternatively, KÖSTER IN 8 reacts only when in contact with water and spontaneously forms a compact, viscoplastic, waterproof polyurethane foam with a volume expansion of up to 30 times, which allows movements of the structure while maintaining a watertight system

All KÖSTER injection resins are installed with the KÖSTER 1C Injection Pump via

injection valves called "Packers" into the crack. Depending on the application, different packers are available.

KÖSTER Impact Packers are installed very quickly and are recommended for low to medium pressure.

KÖSTER Packers and KÖSTER Superpackers are used for all applications from low to high pressure.

KÖSTER One-Day-Site Packers have an extra valve so that the upper part of the packer can be removed directly after injection and the hole plugged. The borehole stays pressure sealed.

Always adhere to the specifications in the respective Technical Guidelines.



## Waterproofing of construction joints in the wall/floor junction

### 1 Installing the packers

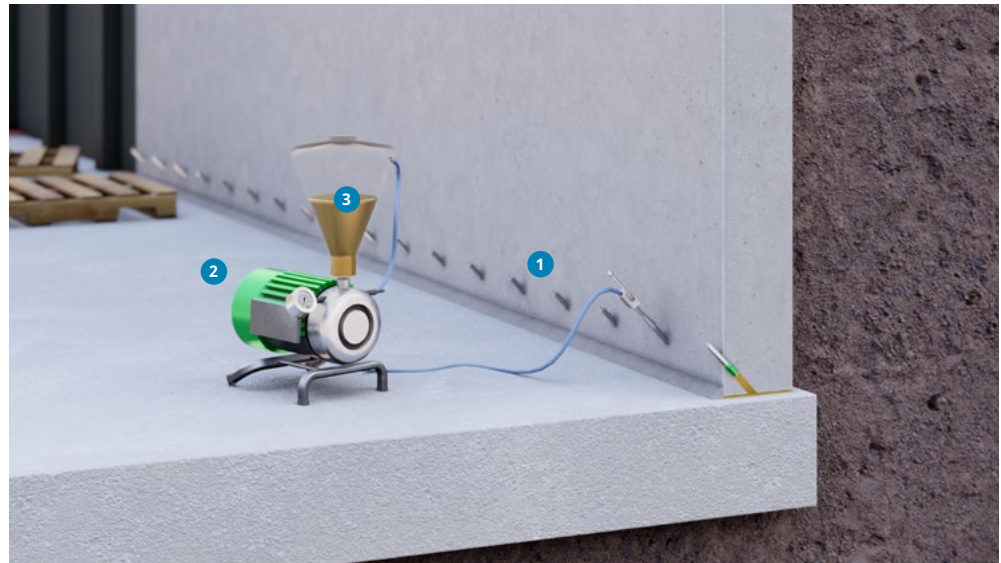
KÖSTER Packer  
13 mm x 130 mm CH  
KÖSTER Superpacker  
13 mm x 130 mm CH

### 2 Pump

KÖSTER 1C Injection Pump

### 3 Injection Resin

KÖSTER 2 IN 1  
KÖSTER IN 2



For retroactive waterproofing of the wall-floor junction, the boreholes have to be drilled transecting the construction joint. The borehole should be drilled approximately into the middle of the construction joint.

In case of flowing water or when it is not certain if the crack is dry or wet, KÖSTER 2 IN 1 is injected. KÖSTER 2 IN 1 is a unique CE certified product, which in dry cracks forms a solid body resin, in wet cracks a water replacing foam. This saves time and logistics on the construction site. It is injected twice, 10 – 20 minutes apart, to ensure that the joint is permanently and elastically sealed.

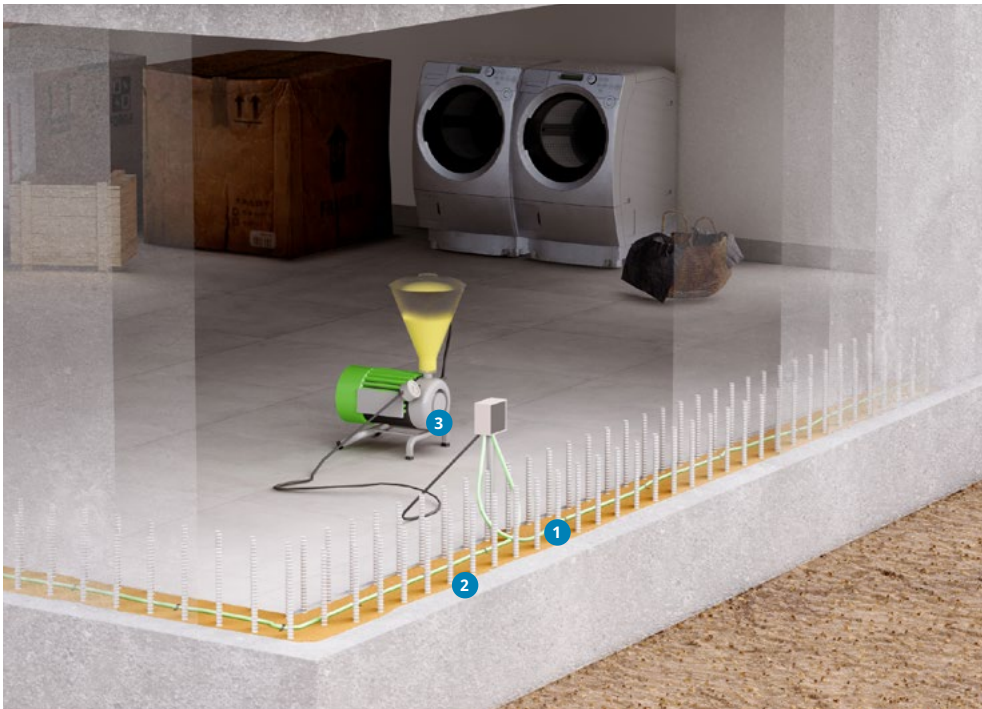
Alternatively, KÖSTER IN 2 is a solvent-free, 2 component polyurethane injection resin which stays permanently elastic, allowing a permanent joint sealing even in case of movement of the structure.

All KÖSTER injection resins are installed with the KÖSTER 1C Injection Pump via injection valves called “Packers” into the cracks or joints. Depending on the application, different packers are available.

The KÖSTER Superpackers are used for all applications injecting from low to high pressure. KÖSTER One-Day-Site Packers have an extra one-way return valve. The bottom portion of the packer prevents the injection material from flowing back out of the wall, so that the upper part of the packer can be removed directly after injection and the borehole stays pressure sealed. The drill hole can be sealed immediately after the injection works.

Always adhere to the specifications in the respective Technical Guidelines.

## Waterproofing of construction joints via an injection hose



1 Injection hose

2 Injection Resin  
KÖSTER IN 5

3 Pump  
KÖSTER 1C Injection Pump

IN

Construction joints, especially in wall-wall and wall-floor junction, when installed underneath ground level, always need particular attention when it comes to waterproofing.

Defects in this area are not uncommon. Before pouring the concrete for the wall, injection hoses are installed in the construction joint. These hoses are usually perforated or slotted. After the concrete has cured, an elastically curing resin is pressure injected into the injection hose. The joint is now permanently elastically sealed and waterproofed.

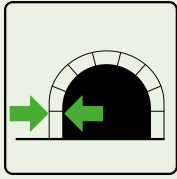
For the application via injection hose, KÖSTER IN 5 is the product of choice.

KÖSTER IN 5 is an EN 1504-5 certified resin with a low viscosity and an outstandingly long pot life, suitable for the injection into dry and moist cracks or joints. These two aspects are very important for the application so the product has enough time to enter the small and fine voids and doesn't start to react during the injection.

All KÖSTER injection resins are installed with the KÖSTER 1C Injection Pump either through packers, or in the case of injection hoses, through special units placed on the walls.

Always adhere to the specifications in the respective Technical Guidelines.

## Acrylic gel injections



Acrylic gels are predominantly distinguished by their extremely low initial viscosity (similar to water), allowing the deepest penetration in the pore structure among all other injection materials. They are typically used for building waterproofing through curtain, masonry, and void injection. Tunnel waterproofing requires specialized waterproofing materials which can vary depending on the type of tunnel elements and construction methods involved. Special parameters such as abnormally high water pressure and infrastructure conditions must be taken into consideration during restoration planning. Acrylic gels used for building waterproofing are characterized, even in the fully reacted state, by having considerable amounts of water (hydrophilic capabilities), which is physically bound in the polymer network. The binding is sufficient that the water cannot be driven out even by high pressure.

## Tubbing Tunnel Construction

- 1 Injection needle
- 2 Curtain injection  
KÖSTER Injection Gel G4  
KÖSTER Injection Gel S4
- 3 Gel pump  
KÖSTER Acrylic Gel Pump



Tunnels consisting of tubbing elements which are built with a tunneling shield or Tunnel Boring Machine (TBM), represent the most advanced method used in tunnel construction. However, despite heavy reinforcement, cracks can appear on the concrete surface due to high pressure from hydraulic stresses on the tubbing elements. In order to prevent moisture damage due to water penetration and subsequent corrosion of the reinforcement, these cracks are sealed with standardized injection methods. Depending on the loads and construction element, crack-bridging or structural rebonding resins are to be used.

Another common problem in tunnel construction is the partial failure of the outer seal and consequent leakage through the tubbing element joints. Very often curtain injection behind the tubbing element is the chosen method of repair. In order to protect the integrity of the concrete elements, special injection needles are placed through the joints, and the acrylic gel KÖSTER Injection Gel G4 is injected. The injection material solidifies the adjacent layers of earth and waterproofs the building component from the backside. Voids between the soil and the tubbing elements are also filled with the waterproofing gel and the outer seal is therefore restored.



## Masonry Tunnel Construction



### 1 Area injection

KÖSTER Injection Barrier  
KÖSTER Injection Gel G4  
KÖSTER Mortar Boost

### 2 Injection packer

KÖSTER Superpacker  
10 mm x 85 mm CH

### 3 Injection pump

KÖSTER Acrylic Gel Pump

### 4 Void filling

KÖSTER Injection Gel G4  
KÖSTER Injection Gel S4

IN

Similar to standard masonry structures, masonry tunnels built with natural stone or brick can also be injected. Boreholes are drilled in a grid horizontally and vertically with every second-row offset and the KÖSTER Superpackers are inserted into the drill holes. In most cases, it is necessary to install an injection barrier, for example with KÖSTER Injection Barrier, in order to prevent the loss of injection material due to uncontrolled outflow.

KÖSTER Injection Gel G4 is injected in multiple phases until a pressure resistance is achieved. Afterwards, the packer holes are filled with KÖSTER KB-Fix 5. The goal is to waterproof the water bearing areas in the building element in order to later apply negative side waterproofing. For a

decorative and functional surface design, KÖSTER Restoration Plasters can be applied over the KÖSTER Injection Barrier.

Hollow spaces behind masonry components require special attention. Here air-filled joints as well as large voids which are more or less filled with water-saturated material (such as earth, sand, gravel, or rubble) can be found. In many cases, it is important to ensure that no structural bonding with the surrounding rock layers takes place. The KÖSTER Injection Gel G4 can also be used to fill voids and create an elastic waterproof body. In the case that too much material is lost through openings or large gaps behind the wall, the faster reaction of KÖSTER Injection Gel S4 may be preferred.

## External basement waterproofing with curtain injection

### 1 Pump

KÖSTER Acrylic Gel Pump

### 2 Injection packers

KÖSTER Lamella  
Impact Packer

KÖSTER Packer

13 mm x 130 mm CH

KÖSTER Superpacker

10 mm x 115 mm CH

KÖSTER Superpacker

10 mm x 85 mm CH

KÖSTER Superpacker

13 mm x 130 mm CH

### 3 Waterproofing layer

KÖSTER Injection Gel G4

KÖSTER Injection Gel S4



Exterior basement waterproofing from inside the building? In the case of renovation, it is not always possible to expose the exterior walls through excavation. For example, where the area to be excavated is built upon, traffic concerns impede the excavation, or the economic cost of excavation is deemed too high. You would first think of an internal (negative side) basement waterproofing, but in some cases, such as in historical buildings or buildings with special architectural requirements, this may not be desirable.

In these cases, a curtain injection with KÖSTER Injection Gel G4 is possible: The resin is injected through the wall from the inside

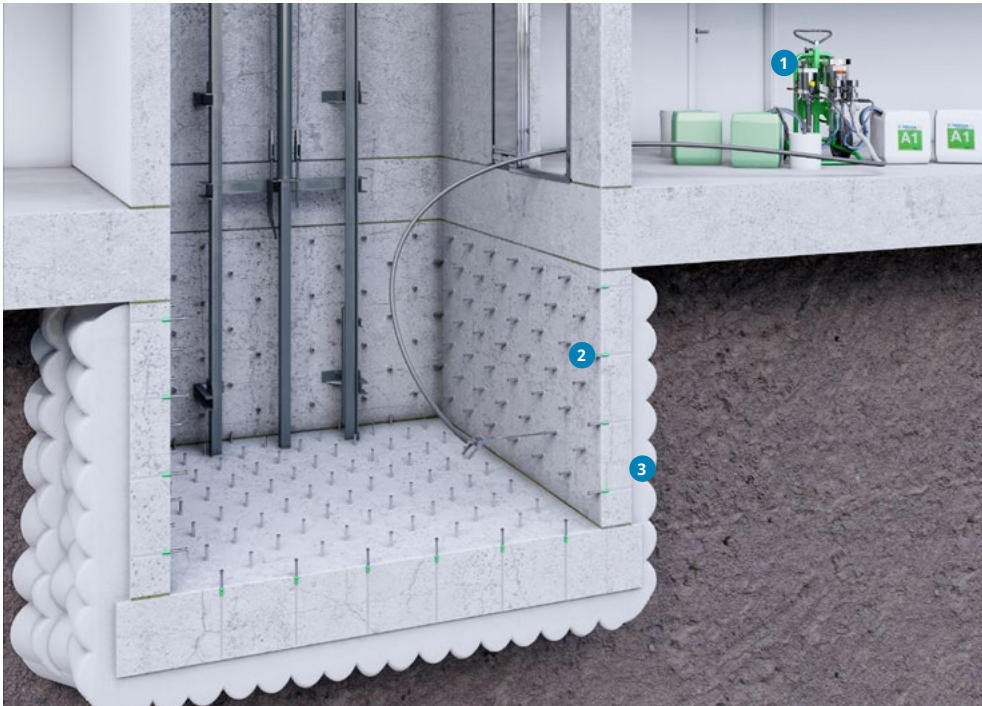
to the outside. Water present behind the wall does not represent a challenge for the KÖSTER injection gels since they do not react with it, but instead it is bound in its matrix, resulting in a waterproof elastic solid body.

The injection is carried out with a special two-component pump, KÖSTER Acrylic Gel Pump, and through special KÖSTER injection packers.

Taking advantage of the extremely low viscosity of the gel, injection into difficult soil conditions like fine sand, silt and some clays is possible.

Always adhere to the specifications in the respective Technical Guidelines

## Vertical and horizontal curtain injection



- 1 Pump**  
KÖSTER Acrylic Gel Pump
- 2 Injection packers**  
KÖSTER Superpacker  
13 mm x 115 mm CH  
KÖSTER Superpacker  
13 mm x 115 mm PH
- 3 Waterproofing layer**  
KÖSTER Injection Gel G4  
KÖSTER Injection Gel S4

IN

The subsequent waterproofing of building components which are not accessible due to neighboring construction or other considerations (such as tunnels, underground parking garages, elevator shafts, or concrete base slabs), is commonly carried out through the waterproofing method referred to as curtain injection. The graphic above shows an elevator shaft being subsequently waterproofed through horizontal curtain injection (underneath the concrete base slab) and through vertical curtain injection (through the walls).

A quadratic, surface-centered grid of standard packers has been drilled into the building component. KÖSTER Injection Gel G4 is injected in numerous phases through the drill holes, resulting in hemispherical areas of waterproofing on the positive (outer) side of the wall, separating the building component from ground water. For

this particular field of application, KÖSTER Injection Gel G4 has received a general construction approval from the Deutschen Institut für Bautechnik (German Institute for Structural Engineering). In the case that too much material is lost through openings or large gaps behind the wall, the faster reaction of KÖSTER Injection Gel S4 may be preferred.

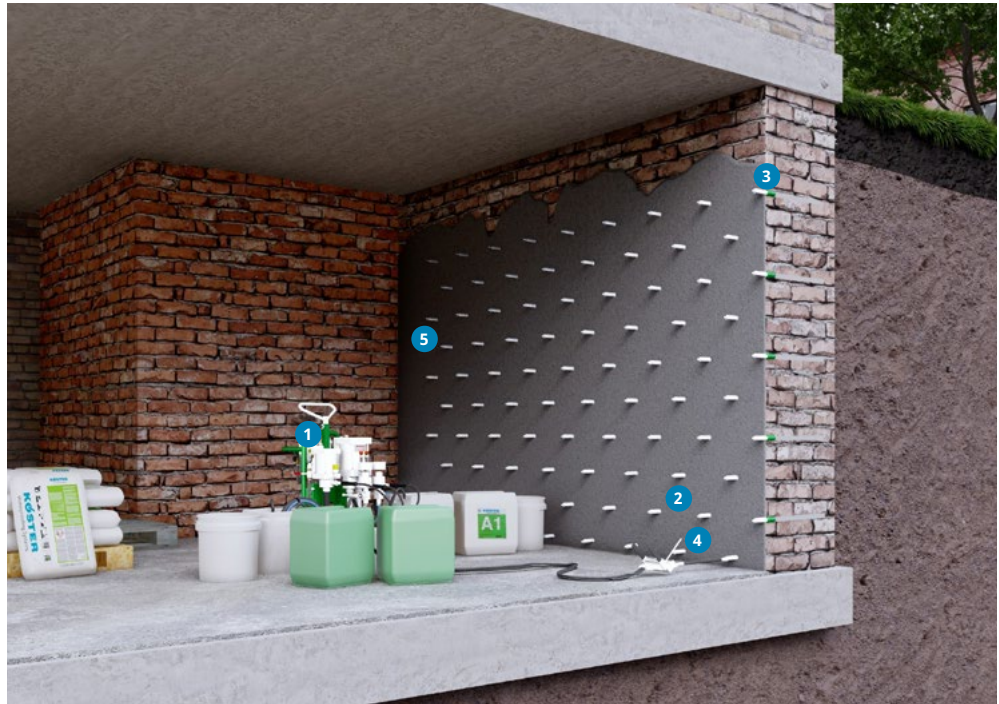
Curtain injection of building components with perforated bricks, bricks with finger holes, aerated concrete blocks, or double-wall constructions require firstly a void injection to fill the gaps and then the use of special gel packers. These long packers can bridge cavities within the wall and discharge the injection material into the ground on the outer side of the building component.

Always adhere to the specifications in the respective Technical Guidelines.



## Masonry injection

- 1 Pump  
KÖSTER Acrylic Gel Pump
- 2 Injection Barrier  
KÖSTER Injection Barrier
- 3 Injection packers  
KÖSTER Superpacker  
13 mm x 130 mm CH
- 4 Waterproofing layer  
KÖSTER Injection Gel G4
- 5 Filling the boreholes  
KÖSTER KB-Fix 5



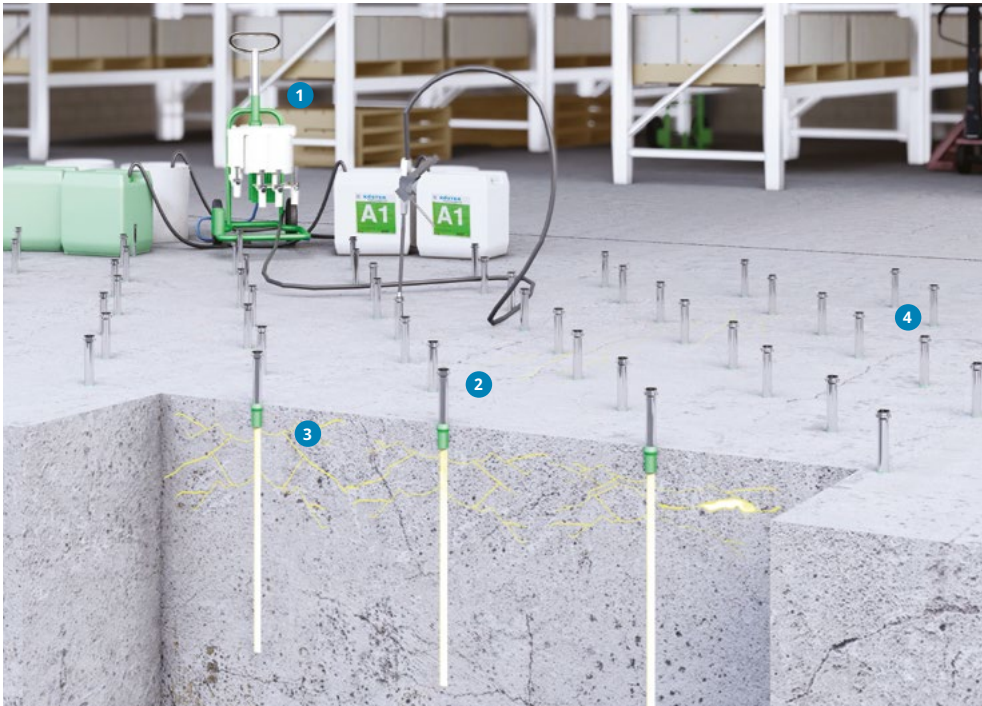
Vertical masonry injection (also known as area injection) is a standard method for the subsequent waterproofing of brick building elements in which excavation is not economical or possible. Boreholes are drilled horizontally on the inside of the building component and angularly at wall-floor connections and wall corners. The drilling depths are determined according to the wall thickness and can amount to approx. 2/3 of the wall thickness. The drill holes must be drilled in such a way that at least one vertical joint is crossed. The holes are drilled in a grid horizontally and vertically with every second row offset. Packers are spaced according to the masonry type at hand. The diameter of the drill holes depends on the chosen packers. KÖSTER Superpackers are inserted into the drill holes. In most cases, it is necessary

to install an injection barrier, for example with KÖSTER Injection Barrier, in order to prevent the loss of injection material due to uncontrolled outflow. In cases of exposed masonry where the appearance must be maintained (such as in historical vaults), KÖSTER Repair Mortar NC can be used for touch ups where needed, without significantly altering the appearance of the masonry instead of installing a complete injection barrier.

KÖSTER Injection Gel G4 is injected in multiple phases until a pressure resistance is achieved. Afterwards, the packer holes are filled with KÖSTER KB-Fix 5. For a decorative and functional surface design, KÖSTER Restoration Plasters can be applied over the KÖSTER Injection Barrier.

Always adhere to the specifications in the respective Technical Guidelines.

## Concrete injection



- 1 Pump**  
KÖSTER Acrylic Gel Pump
- 2 Injection packers**  
KÖSTER One-Day-Site Packer 13 mm x 90 mm PH  
KÖSTER One-Day-Site Packer 13 mm x 120 mm CH
- 3 Waterproofing layer**  
KÖSTER Injection Gel G4
- 4 Filling the boreholes**  
KÖSTER KB-Fix 5

IN

Concrete structures exposed to extreme conditions, like intense heat, are subject to higher damaged in its micro structure, which can result in a higher porosity and cracking. Old concrete may have also lost some of its integrity due to external influences, or possible prolonged water filtrations. Bad concreting or poor vibration can as well be causes of unwanted honeycombs or cracks on the surface. All these situations required an intelligent system with the capacity to fill the finest cracks and voids and stop water filtrations through the structure.

Although concrete injection is not the most commonly injection performed, it belongs to the fields of applications of the acrylic gels. Once again, the low viscosity of the material and the safe curing without affecting the steel

reinforcement, make concrete injection a specialized field of application for the KÖSTER Injection Gels.

KÖSTER Injection Gel G4 is an extremely low viscosity acrylic gel can intelligently follow the paths of water ingress, and after curing, seals filtrations effectively from the source. The structure is drilled in a specified pattern, depending on the dimensions and conditions, and KÖSTER Superpackers are inserted into the drill holes. The KÖSTER Injection Gel G4 is injected in one or multiple phases until a pressure resistance is achieved. Afterwards the packer holes can be filled with KÖSTER KB-Fix 5.

Always adhere to the specifications in the respective Technical Guidelines.

## Soil stabilization

- 1 Pump  
KÖSTER Acrylic Gel Pump
- 2 Injection lances
- 3 Injection and stabilization layer  
KÖSTER Injection Gel G4



By changes in the ground water level or the presence of water currents within the soil structure, the fine substance from the underground can be washed out, creating voids in the soil.

These voids can reduce the integrity of the soil structure until it collapses. Evidence of this phenomena is usually seen through the settlement of the structures, or in worst cases, through the formation of cavities or hollow chambers in the ground.

To reduce the loss of the fines from the underground, a soil stabilization must be performed. This stabilization is carried out with the injection of KÖSTER Injection Gel G4 through special injection lances.

The low viscosity of the gel allows a deep penetration and distribution of the material between the grain's matrix, binding the soil

and water into an elastic gel-soil body. The result is a more stable, waterproofed soil composition without the risk of washing out of fines.

Soil stabilization with acrylic gels can be performed for example underneath house or building footings to prevent settlement from loss of fine from the ground and allow further construction, through walls to stabilize material behind and conduct structural repairs or drainage replacements, or inside dikes to enhanced the filled material and reduce water filtrations, among others. All applications required specific planning and must be considered individually for the most suitable procedure.

Always adhere to the specifications in the respective Technical Guidelines.



## KÖSTER IN 2

1 kg combipackage  
(IN 220 001)

8 kg combipackage  
(IN 220 008)

40 kg combipackage  
(IN 220 040)

Elastic PU injection resin. For permanently waterproofing cracks and joints. It is designed to withstand continuous contraction and expansion and is therefore ideal for the repair of moving cracks. Also suitable for slightly damp cracks. Viscosity approx. 200 mPa.s.

**Fields of application:** KÖSTER IN 2 is used in cases where future movements of the building structure can not be excluded.

**Consumption:** Approx. 1.1 kg / l void



IN

## KÖSTER IN 4

10 kg combipackage  
(IN 240 010)

Solvent free, flexible, extremely low viscosity polyurethane for elastically sealing very fine cracks and construction joints in building structures. KÖSTER IN 4 is permanently elastic and flexible at low temperatures.

**Fields of application:** waterproofing of fine cracks, construction joints, hose injection, or for solidifying porous building structures.

**Consumption:** Approx. 1.1 kg / l void



## KÖSTER IN 5

10 kg combipackage  
(IN 250 010)

2-component elastic PU injection resin, specially suitable for hose injection. For permanently and elastically sealing dry, moist and waterbearing cracks and joints in concrete. Very low viscosity (at +25 °C approx. 70 mPa · s). Mixing ratio 1:1 by volume. Fields of application: pressurized injection, waterproofing of fine cracks, hose injection or for solidifying porous building structures. CE-Certification according to DIN EN 1504-5.

**Consumption:** Approx. 1.1 kg / l void

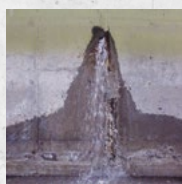


## KÖSTER 2 IN 1

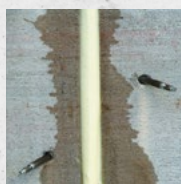


Broadly applicable solvent-free PU injection resin for dry and water bearing cracks. The specialty: KÖSTER 2 IN 1 forms an elastic foam when coming into contact with water which pushes the water out of the crack. If no water is present the material forms an elastic solid body resin and permanently seals the crack.

**Fields of application:** Waterproofing of water bearing and permanently sealing dry cracks in masonry and concrete. Tested according to EN 1504.



For water bearing cracks



Forms foam in wet cracks



For dry cracks



Forms resin in dry cracks

**Article No.:**  
IN 201

**Consumption:**  
Approx. 0.1 kg / l void (foam),  
approx. 1.1 kg / l void (solid resin)

**Packaging:**  
1kg combipackage (IN 201 001)  
5 kg combipackage (IN 201 005)  
20 kg combipackage (IN 201-020)

**KÖSTER  
IN 7**

5.5 kg combipackage  
(IN 270 005)

27.5 kg combipackage  
(IN 270 027)

Viscoplastic, water activated PU injection foam. Reacts only when in contact with water and spontaneously forms a compact, viscoplastic, waterproof polyurethane foam which is able to follow crack movements. Volume expansion up to 30 times. Free of solvents and fillers, resistant to hydrolysis.

**Fields of application:** Single-step waterproofing of water bearing cracks without the subsequent injection of a solid body resin.

**Consumption:** Approx. 0.1 kg / l void



**KÖSTER  
IN 8**

5 kg jerrycan  
(IN 271 005)

Viscoplastic, one component water activated PU injection foam. Reacts immediately upon contact with water and forms a compact, viscoelastic, waterproof polyurethane foam which is able to follow crack movements. Volume expansion up to 30 times. Free of solvents and fillers, resistant to acid and hydrolysis.

**Fields of application:** Single-step waterproofing of water bearing cracks in masonry and concrete without subsequent injection of solid body resin.

**Consumption:** Approx. 0.1 kg/l void



**KÖSTER  
IN 8 Accelerator**

0.5 kg bottle  
(IN 272 500)

Accelerator for KÖSTER IN 8 injection foam

**Consumption:** max. 10 % of KÖSTER IN 8 quantity (by weight)

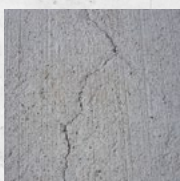


**KÖSTER  
KB-Pox IN**



Solvent free, 2 component low viscous epoxy injection resin for crack injection. Due to its high rate of penetration into porous substrates and its excellent adhesion to concrete, stone, masonry and metal, KÖSTER KB-Pox IN permanently seals and bridges cracks and as well as joints and restores structural integrity. The material does not contain any fillers or softeners and thereby sedimentation is avoided.

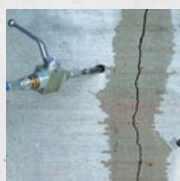
**Fields of application:** Suitable for the restoration of structural bonding in cracks and joints. Without pre-injection KÖSTER KB-Pox IN can be used for filling and closing dry, damp and wet cracks, joints and voids. Tested according to EN 1504.



Penetrates into very fine cracks



Suitable for moist cracks



Suitable for wet cracks



Crack stitching

**Article No.:**  
IN 231

**Consumption:**  
Approx. 1 kg / l void

**Packaging:**  
11 kg combipackage (IN 231 001)  
6 kg combipackage (IN 231 006)

**KÖSTER**  
 Injection Gel S4  
 20 kg component A1  
 (IN 294 020 A1)  
 1 kg component A2  
 (IN 294 001 A2)  
 0,4 kg component B  
 (IN 294 400 B)  
 18 kg component B+  
 (IN 294 018 B+)

Reaction time adjustable acrylic gel for curtain injection and dilatation joint waterproofing. Due to the low viscosity it can be injected into very fine pored structures using a multi-stage injection technique fitted to the reaction-time curve of the material. Can be used with the B + component to add higher flank adhesion to concrete surfaces dilatation joint waterproofing. Yields after reaction time a viscoelastic product that is very suitable for moving joints. Can take up water after reaction.



IN

**Consumption:** Depends on the field of application

**KÖSTER**  
 Micro Grout 1C

24 kg bag  
 (IN 295 024)

Injection grout for the restoration of structural strength in cracks or voids in masonry and concrete. KÖSTER Micro Grout 1C possesses a high compressive strength, is shrink free, and does not show sedimentation during its pot life. Fields of application include crack injection also in overhead areas, filling of voids, as well as the grouting of masonry anchors.



**Consumption:** Approx. 1.6 kg / l void

**KÖSTER**  
 PUR Gel  
 2.5 kg jerrycan  
 (IN 285 002)  
 25 kg jerrycan  
 (IN 285 025)  
 210 kg drum  
 (IN 285 210)

Water activated polyurethane gel for area injections as well as for waterproofing expansion and dilation joints. KÖSTER PUR Gel reacts with water and can bind up to ten times its own weight in water. Oakum soaked in KÖSTER PUR Gel can be an elegant method for solving difficult active water ingress problems in pipes, joints, and cavities. It is often used where large amounts of free water must be bound.



**Consumption:** Depends on the field of application.



## KÖSTER Injection Gel G4



Low viscosity acrylic gel for curtain injection as well as area injection of masonry and concrete. Water based, elastic gel with a very low starting viscosity after initial mixing. It is capable of binding water during gelation. The swelling ability after full curing allows a 40% uptake of additional water into the gel structure. Due to the low starting viscosity, it can be injected into fine substrate pores. KÖSTER Injection Gel G4 is drinking water and non-toxic ground water interaction certified.



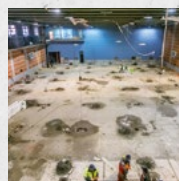
Masonry injection



Curtain injection



Injection equipment



Specialized applications

**Article No.:**  
 IN 290 021

**Consumption:**  
 Depends on the field of application

**Packaging:**  
 Component A1: 20 kg;  
 Component A2: 1 kg;  
 Component B: 0.4 kg



**KÖSTER**  
Injection Barrier

25 kg bag  
(IN 501 025)

Mortar for full area injection barrier when injecting KÖSTER Injection Gel G4. Mixed with KÖSTER Mortar Boost.

**Consumption:** Approx. 1.8 kg / mm / m<sup>2</sup>



**KÖSTER**  
Acrylic Gel Pump

piece  
(IN 930 001)

Pneumatic pump made of stainless steel for the application of KÖSTER Injection Gel G4 & S4. Mixing ratio 1:1 Capacity: Max. 11 l per minute. Working pressure: 15 – 220 bar.



**KÖSTER**  
Ball Valve

piece  
(IN 929 003)

Ball valve with grip head for the KÖSTER 1C Injection Pump.



**KÖSTER**  
Cleaning Brush

piece  
(IN 959 001)

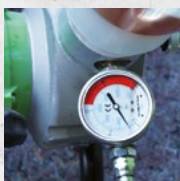
Conical round brush for cleaning voids at cable and pathway penetrations.



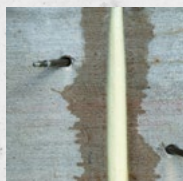
**KÖSTER**  
1C Injection Pump



Electrical 1C injection pump for injecting of cracks and voids. It is suitable for the injection of all KÖSTER injection materials (foams and resins). Operating pressure can be adjusted from 0 - 200 bar. The maximum delivery rate is approx. 2.2 l / min.



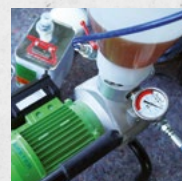
0-200 bar adjustable pressure



Suitable for foams



Suitable for resins



6 l container capacity

Article No.:  
IN 929 001

Packaging:  
Piece

**KÖSTER**  
Coarse Sieve

piece  
(IN 929 006)

Coarse sieve for the material hopper of the KÖSTER 1C Injection Pump.



**KÖSTER**  
Cutting Device for  
Gel Packers

piece  
(IN 936 001)

Cutting device for reducing the length of KÖSTER Gel Packer Extension Pipes as well as KÖSTER Capillary Rods.



**KÖSTER**  
Drive in aid for  
Impact Packer 12

piece  
(IN 907 001)

Plastic cylinder for installing impact packers.



**KÖSTER**  
Drive in aid for  
Lamella Packer

piece  
(IN 911 001)

Plastic cylinder for installing KÖSTER Lamella Packer.



**KÖSTER**  
Drive-in Aid for Gel  
Packers

piece  
(IN 935 001)

Drive-in aid for KÖSTER Gel Packers.



**KÖSTER**  
Fine Sieve

piece  
(IN 929 007)

Fine sieve for the material hopper of the KÖSTER 1C Injection Pump.



**KÖSTER**  
Gel Hose for KÖSTER  
PUR Gel Pump

piece  
(IN 928 003)

Material hose for the KÖSTER PUR Gel Pump.  
**Length: 5 m**



**KÖSTER**  
Gel Packer (Base)

piece  
(IN 931 001)

Impact packers for gel injection using pan-head fitting and non-return valves. With connection threads for an extension pipe. 18 mm x 115 mm.



**KÖSTER**  
Gel Packer (End piece)

piece  
(IN 932 001)

Patented end piece for gel packers with four sideways facing outlets for curtain injection (German patent 599 10 808.8, European patent No. 0 980 935). With connection threads for the KÖSTER Gel Packer Extension Pipe.



**KÖSTER**  
Gel Packer extension  
pipe 800 mm

piece  
(IN 933 001)

Extension pipe for KÖSTER Gel Packers.

**Length:** 800 mm.



**KÖSTER**  
Gel Packer Screwcap

piece  
(IN 937 001)

Screwcap for KÖSTER Gel Packers, plastic material.



**KÖSTER**  
Drill bit SDS Plus  
13 x 250 mm

piece  
(IN 938 001)

The 13 mm drill bit is required for the installation of KÖSTER Superpackers, KÖSTER One-day Site Packers, and KÖSTER Masonry Packers. It fits in all SDS Plus chucks.



**KÖSTER**  
Grip Head

piece  
(IN 953 005)

With 4 jaws for cone-head fittings.



**KÖSTER**  
Hand Pump with  
manometer

piece  
(IN 953 002)

For small injection projects or areas which are difficult to access. Operating pressure 10 bar max., output approx. 2 – 3 cm<sup>3</sup> per pass.



**KÖSTER**  
Hand Pump without  
manometer

piece  
(IN 953 001)

For small injection projects or areas which are difficult to access. Operating pressure 10 bar max., output approx. 2 – 3 cm<sup>3</sup> per pass.



**KÖSTER**  
Injection Gun

piece  
(IN 929 016)

One-handed adjustable high-pressure injection gun for KÖSTER Acrylic Gel Pump and KÖSTER 1C Injection Pump. This alternative method to a classic ball valve application is easy to use and is designed for a pressure of up to 250 bar.





**KÖSTER**  
Injection Hose

piece  
(IN 929 002)

Injection hose for the KÖSTER 1C Injection Pump.  
**Length:** 5 m



**KÖSTER**  
Impact Packer  
12 mm x 70 mm

piece  
(IN 903 001)

Plastic packer with cone-head fitting and non-return valve for low-pressure injection used in horizontal barriers with KÖSTER Mautrol 2C or KÖSTER Mautrol Flex 2C.



**KÖSTER**  
Resin Stirrer 100 mm

piece  
(IN 988 001)

Special mixer for resins. Reduces air enclosures entrainment. Replaceable stirring disc. Shaft 12 mm Ø for chuck

**Large version:** hex head, stirrer diameter: 11 mm, stirrer length: approx. 48 cm, diameter stirring disc: 10 cm



**KÖSTER**  
Resin Stirrer 75 mm

piece  
(IN 989 001)

Special mixer for resins. Reduces air enclosures entrainment. Replaceable stirring disc. Shaft 12 mm Ø for chuck.

**Small version:** hex head, stirrer diameter: 9 mm, stirrer length: approx. 28 cm, diameter stirring disc: 7.5 cm



Replacement disc 75 mm  
(IN 989 002)

**KÖSTER**  
Injection Whip for  
Gel Pumps

piece  
(IN 928 006)

For KÖSTER Acrylic Gel Pump and KÖSTER PUR Gel Pump, length 250 mm.



**KÖSTER**  
Injection Whip for  
Hand Pump

piece  
(IN 953 003)  
(IN 953 004)

Injection whip for KÖSTER hand pumps.

**Available length:** 300 mm or 500 mm. Threaded connection M10 outside



**KÖSTER**  
Lamella Impact  
Packer

piece  
(IN 909 001)

A modular impact packer for the injection of grouts, gel, and injection resins. Depending on the application it can be expanded with a slip-on non-return valve. Drillhole diameter 18 mm. Patented.



**KÖSTER**  
Lamella Impact  
Packer Adapter

piece  
(IN 908 001)

Adapter for connecting KÖSTER Lamella Impact Packers.



**KÖSTER**  
Loka Handpump

piece  
(IN 952 001)

Manual membrane pump for the pumping and injection of grouts.



**KÖSTER**  
Manometer

piece  
(IN 929 004)

Manometer for the KÖSTER 1C Injection Pump.



**KÖSTER**  
Manometer for  
KÖSTER PUR Gel  
Pump

piece  
(IN 928 004)

Manometer for the KÖSTER PUR Gel Pump.



**KÖSTER**  
Material Hopper

piece  
(IN 929 005)

6 l material hopper with sieve for the KÖSTER 1C Injection Pump.



**KÖSTER**  
Material Hose

piece  
(IN 930 002)

High pressure material hose for KÖSTER Acrylic Gel Pump.  
**Length:** 2 m



**KÖSTER**  
Mix head for KÖSTER  
PUR Gel Pump

piece  
(IN 928 005)

Mixing head for the KÖSTER PUR Gel Pump.



**KÖSTER**  
One-Day-Site Packer  
13 mm x 120 mm CH

piece  
(IN 919 001)

The KÖSTER ONE-DAY-SITE Packer allows injection work to be completed in one day.

The screw packer for pressure injection has a firmly mounted cone-head fitting and two non-return valves. Immediately after injecting, that part of the port which protrudes from the wall can be unscrewed and removed. The central part of the port stays in the wall sealing the borehole so that no injection material can flow out of the borehole even under high pressure. The borehole can then be closed immediately after injection.



**KÖSTER**  
One-Day-Site Packer  
13 mm x 120 mm PH

piece  
(IN 922 001)

The KÖSTER ONE-DAY-SITE Packer allows injection work to be completed in one day.

The screw packer for pressure injection has a firmly mounted pan-head fitting and two non-return valves. Immediately after injecting, that part of the port which protrudes from the wall can be unscrewed and removed. The central part of the port stays in the wall sealing the borehole so that no injection material can flow out of the borehole even under high pressure. The borehole can then be closed immediately after injection.



**KÖSTER**  
One-Day-Site Packer  
13 mm x 90 mm CH

piece  
(IN 918 001)

The KÖSTER ONE-DAY-SITE Packer allows injection work to be completed in one day.

The screw packer for pressure injection has a firmly mounted cone-head fitting and two non-return valves. Immediately after injecting, that part of the port which protrudes from the wall can be unscrewed and removed. The central part of the port stays in the wall sealing the borehole so that no injection material can flow out of the borehole even under high pressure. The borehole can then be closed immediately after injection.



**KÖSTER**  
One-Day-Site Packer  
13 mm x 90 mm PH

piece  
(IN 921 001)

The KÖSTER ONE-DAY-SITE Packer allows injection work to be completed in one day.

The screw packer for pressure injection has a firmly mounted pan-head fitting and two non-return valves. Immediately after injecting, that part of the port which protrudes from the wall can be unscrewed and removed. The central part of the port stays in the wall sealing the borehole so that no injection material can flow out of the borehole even under high pressure. The borehole can then be closed immediately after injection.





**KÖSTER**  
Packer

13 mm x 130 mm CH

piece  
(IN 913 002)

The KÖSTER Packer is particularly suitable for pressure injections.

The arrangement of the split packer rubbers results in excellent contact pressure in the borehole. The surface of the clamping rubber easily digs into the borehole, adapts to the borehole wall and thus increases its tightness. It has a firmly mounted cone-head fitting for pressure injection and is galvanized.



**KÖSTER**  
PUR Cleaner

1 l bottle  
(IN 900 001)

10 l jerrycan  
(IN 900 010)

Cleaning agent for the removal of fresh polyurethane. Suitable for cleaning tools, e. g. the KÖSTER 1C Injection Pump after injecting KÖSTER Injection Resins. Based on special solvents.

**Consumption:** as needed



**KÖSTER**  
Slide Coupling for  
pan-head fitting

piece  
(IN 928 007)

KÖSTER slide coupling for pan-head fitting.

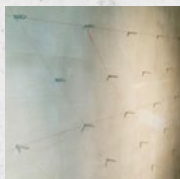


**KÖSTER**  
PUR Gel Pump

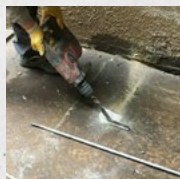
Electrical 2C injection pump with stageless adjustable mixing ratio (gel : water).  
Operating pressure is approx. 30 bar.  
The maximum delivery rate is approx. 2.5 l / min.



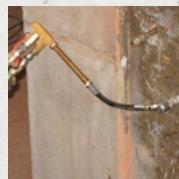
Curtain injection



Surface injection



Water-bearing joints



Adjustable mixing ratio

**Article No.:**  
IN 928 001

**Packaging:**  
Piece

**KÖSTER**  
Superpacker  
13 mm x 115 mm CH

piece  
(IN 915 001)

The KÖSTER Superpacker is suitable for pressure injections as it provides a very high contact pressure to the borehole due to the cone-shaped center of the tightening mechanism. Four fins and two ridges on the rubber gasket prevent rotation during tightening and optimize the fixation in the borehole.



**KÖSTER**  
Superpacker  
13 mm x 115 mm PH

piece  
(IN 917 001)

The KÖSTER Superpacker is suitable for pressure injections as it provides a very high contact pressure to the borehole due to the cone-shaped center of the tightening mechanism. Four fins and two ridges on the rubber gasket prevent rotation during tightening and optimize the fixation in the borehole.



**KÖSTER**  
Superpacker  
13 mm x 85 mm CH

piece  
(IN 914 001)

The KÖSTER Superpacker is suitable for pressure injections as it provides a very high contact pressure to the borehole due to the cone-shaped center of the tightening mechanism. Four fins and two ridges on the rubber gasket prevent rotation during tightening and optimize the fixation in the borehole.



**KÖSTER**  
Superpacker  
13 mm x 85 mm PH

piece  
(IN 916 001)

The KÖSTER Superpacker is suitable for pressure injections as it provides a very high contact pressure to the borehole due to the cone-shaped center of the tightening mechanism. Four fins and two ridges on the rubber gasket prevent rotation during tightening and optimize the fixation in the borehole.



**KÖSTER**  
Swivel Joint

piece  
(IN 928 008)

Connection between injection whip and slide coupling. Length 30 mm.



**KÖSTER**  
Water Hose for  
KÖSTER PUR Gel Pump

piece  
(IN 928 002)

Water Hose for KÖSTER PUR Gel Pump.  
**Length:** 5 m







Whether a tunnel or basement, public or private, KÖSTER offers a complete portfolio of injection systems to best protect against moisture damages.





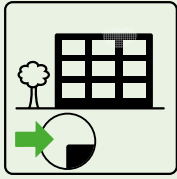
C

## Concrete Repair and Protection

Special mortars, concrete  
and mortar additives



## Concrete Repair Systems



Damages to construction members made of concrete require treatment in order to restore the original characteristics. Exposed steel reinforcement must also be protected from corrosion. The original structure is restored using mineral products, that recover not only the functionality of the structures, but also protect them from further corrosion and the carbonation process.

### Small Areas

- 1 Concrete Repair  
KÖSTER Betomor Multi A

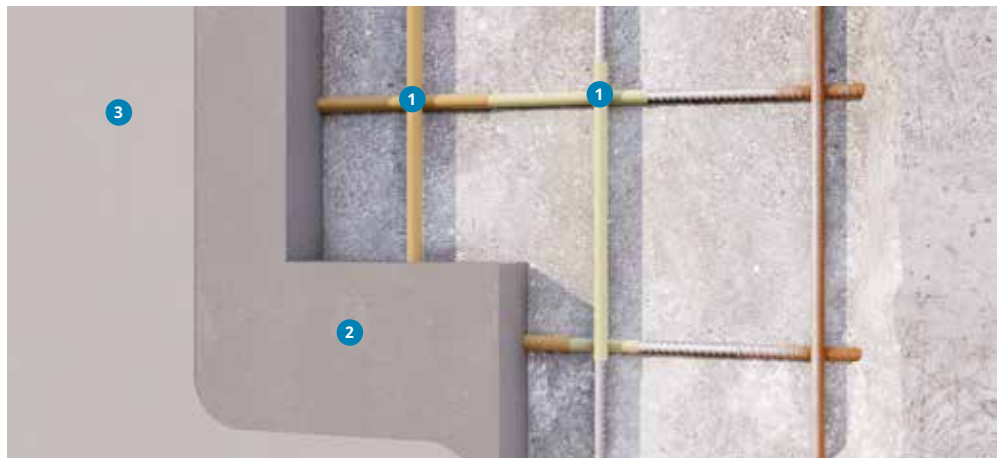


Concrete replacement and repair is a wide-ranging field of application. Besides "green" building materials, KÖSTER provides intelligent products. While some companies require three different products for such

repairs, (corrosion protection, coarse filler, and finish coat) KÖSTER Betomor Multi-A combines all of these products into one intelligent, simple to use system.

### Large Areas

- 1 Corrosion protection (reinforcement)  
KÖSTER Z 1  
KÖSTER Z 2
- 2 Concrete repair  
KÖSTER Repair Mortar R4
- 3 Surface levelling and smoothing  
KÖSTER C-Coat



Repairing and replacing concrete over large areas has requirements on ease of application, re-alkalizing the reinforcement, and replacing the concrete cover with water and chemical resistant specialty

mortars. Certification for structural approval according to the DIN EN 1504 is also a common requirement. Therefore, KÖSTER provides systems to meet all of these demands.

## Large Areas (spray application)



### 1 Corrosion protection (reinforcement)

KÖSTER Z 1  
KÖSTER Z 2

### 2 Concrete repair

KÖSTER Repair Mortar NC

C

Besides requirements on durability, chemical and mechanical resistance, water-tightness, certifications, re-alkalization of the structural environment, protection and regaining coverage of the reinforcement, ease of application is a major influence

on the choice of material. Thereby, the possibility of spray application may be a key factor in material selection. KÖSTER Repair Mortar NC is a fiber reinforced PCC mortar for large area concrete replacement and is sprayable with the proper equipment.

## Rough Surface renovation



### 1 Rough concrete

### 2 Surface levelling and smoothing

KÖSTER C-Coat

Often there are considerations besides the structural repair and remediation of structures. Aesthetics play an important role in building renovation. It is often

not desirable to easily visually tell that a structure has been repaired. KÖSTER C-Coat is a thin skimming mortar that provides an optically appealing, concrete-like surface.



## High early strength mortar systems (1h)

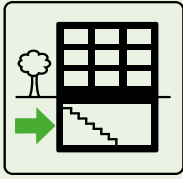
- 1 Concrete repair
  - KÖSTER Turbo Mortar F
  - KÖSTER Turbo Mortar M



Different areas of application have requirements on how long a building site can be closed down. Very often it is desirable to open an area to traffic as soon as possible. Generally, the requirement for this is a minimum compressive strength of 20 N/mm<sup>2</sup>. KÖSTER Turbo Mortars reach this in approximately one hour. Despite this high early strength these products have an exceptionally low shrinkage and high resistance to freeze/thaw damage. The consistency of the mortars can be regulated for vertical or horizontal application.

The KÖSTER Turbo Mortars are suitable for all interior and exterior concrete repairs. KÖSTER Turbo Mortar F is a repair, concrete replacement, and reprofiling mortar with an exceptional strength development, applicable in layer thickness of up to 20 mm. KÖSTER Turbo Mortar M is a fiber reinforced repair, concrete replacement, and re-profiling mortar with high chemical and mechanical resistance, applicable in layer thickness from 3 mm to 50 mm.

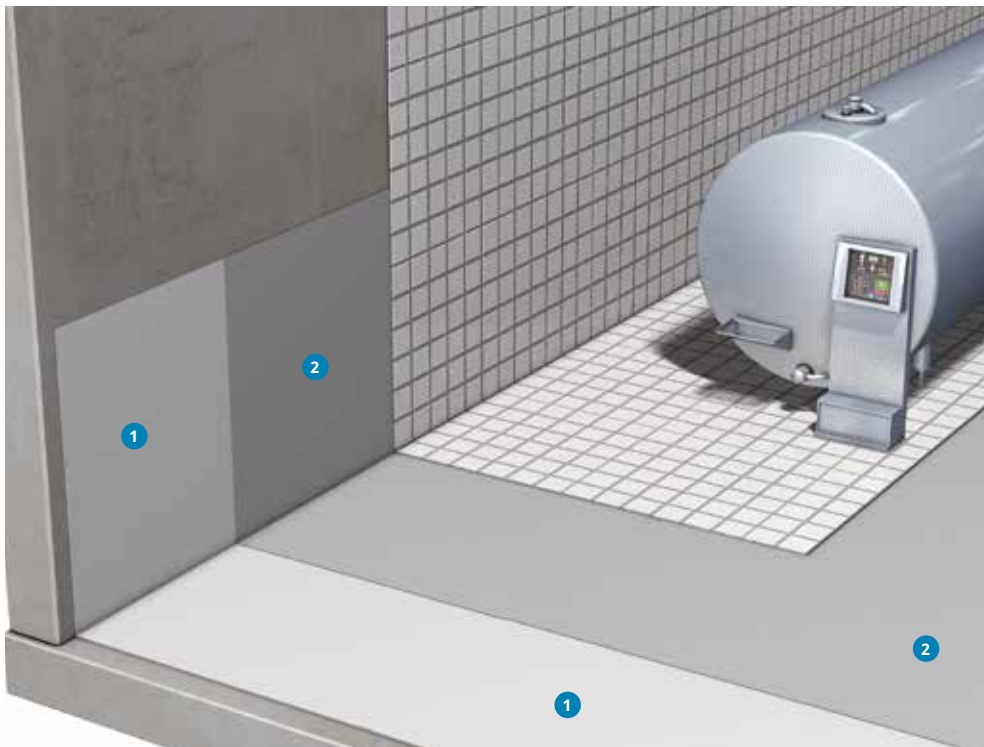
## Concrete Protection Systems



Concrete structures are subjected to a wide variety of damaging influences, both mechanical and chemical. Chemicals can directly attack the concrete matrix or dissolve in water and so enter the concrete and induce damage. To keep the structure safe, KÖSTER manufactures a wide variety of materials for the waterproofing and chemical protection of concrete. From hydrophobizing agents, to coatings for concrete and steel, and paints, KÖSTER can provide the proper solution for every problem.

C

### Heavy duty corrosion protection for concrete



- 1 Waterproofing layer  
KÖSTER NB 1 Grey
- 2 Heavy duty surface protection  
KÖSTER PSM  
KÖSTER PSM 2S+

For the protection of concrete surfaces against acids, the first step is to coat the surface with the negative side waterproofing KÖSTER NB 1 Grey. KÖSTER NB 1 Grey possesses excellent pressure and abrasion resistance, as well as chemical and sulphate resistance. This waterproofing layer protects the mineral substrate from degradation caused by harmful substances.

The acid protection itself is made with the three-component, highly chemical resistant, silicate and polymer-based special mineral mortar KÖSTER PSM. KÖSTER PSM is applied

on horizontal and vertical areas which require very high acid resistance in the range of pH 0 – 8.

Surfaces made from KÖSTER PSM can be directly sealed with KÖSTER PSM 2S + after 4 hours without further mechanical surface treatment. KÖSTER PSM 2S + is a transparent, one-component, solvent-free sealant for mineral surfaces, which is characterized by a particularly high thermal and chemical resistance.

Always adhere to the specifications in the respective Technical Guidelines.

## Heavy duty acid & corrosion protection for chimneys

- 1 **Reprofiling**  
KÖSTER Repair Mortar NC  
KÖSTER Repair Mortar R4
- 2 **Surface protection**  
KÖSTER PSM
- 3 **Surface protection**  
KÖSTER PSM 2S+
- 4 **Surface levelling and smoothing**  
KÖSTER C-Coat
- 5 **Paint**  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White



One example of the need for heavy duty corrosion protection against acidic fumes and condensate, is the coating of industrial chimneys made of concrete or masonry.

For the restoration of concrete or masonry structures, the substrate is to be mechanically cleaned until a solid, unburdened substrate is achieved. The surface is primed with KÖSTER Polysil TG 500, which hardens the substrate and immobilizes salts. Reprofiling is done with KÖSTER Repair Mortar NC or the class R4 mortar KÖSTER Repair Mortar R4.

The surface is then roughened in order to achieve a strong mechanical bond to the surface and protected with the three-component, highly chemical resistant, silicate and polymer-based special mineral mortar KÖSTER PSM. KÖSTER PSM is applied on horizontal and vertical areas which require very high acid resistance in the range of pH 0 – 8.

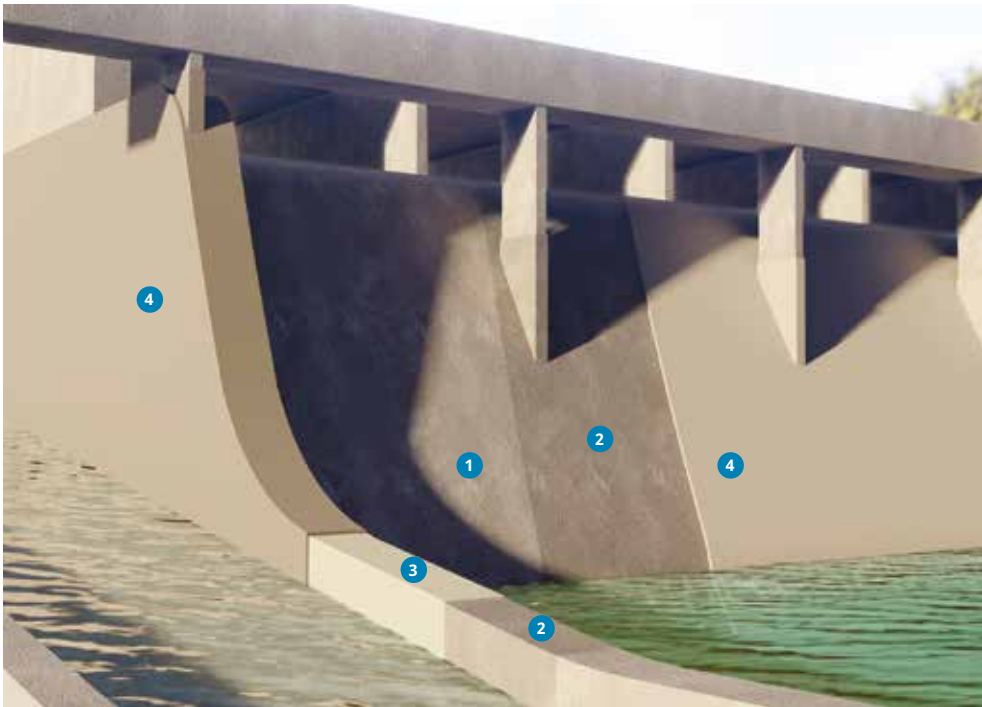
Surfaces made from KÖSTER PSM can be directly sealed with KÖSTER PSM 2S + after 4 hours without further mechanical surface treatment. KÖSTER PSM 2S + is a transparent, one-component, solvent-free sealant for mineral surfaces, which is characterized by a particularly high thermal and chemical resistance.

Exterior surfaces can also be repaired with KÖSTER Repair Mortar NC and smooth with the polymer modified levelling mortar KÖSTER C-Coat. The decorative appearance can be achieved with the high quality, matt, water thinnable paint KÖSTER Acrylic Paint. KÖSTER Acrylic Paint slows the diffusion of CO<sub>2</sub> from the atmosphere and therefore, slows the carbonation process of concrete.

Always adhere to the specifications in the respective Technical Guidelines.



## Concrete protection of dams and spillways



- 1 Substrate
- 2 Primer  
KÖSTER Polysil TG 500
- 3 Waterproofing layer  
KÖSTER NB 1 Grey
- 4 Surface protection  
KÖSTER Repair Mortar R4

C

Massive water structures such as dams and spillways are constantly under high stresses due to strong water currents, which can cause damages to the concrete elements. Therefore, the concrete surfaces must be protected to reduce the loss of concrete coverage, and avoid water ingress in the structure that could trigger rebar corrosion and further carbonation.

Before installing a waterproofing and protection system, the concrete surfaces must be properly cleaned and prepared. Cracks in the concrete must be treated accordingly with a KÖSTER injection resin. Afterwards, the surface is primed with the deeply penetrating primer KÖSTER Polysil TG 500.

Water channels and tanks can be safely waterproofed with the mineral waterproofing with subsequently crystallizing agents KÖSTER NB 1 Grey.

KÖSTER NB 1 Grey possesses excellent pressure and abrasion resistance, as well as chemical and sulphate resistance. It is also approved by the building authorities and tested in accordance with the potable water guidelines.

The surface protection and repair are carried out with the class R4 concrete repair mortar KÖSTER Repair Mortar R4. The material has been tested and approved according to EN 1504-3 and is distinguished by its high chemical and mechanical resistance. KÖSTER Repair Mortar R4 is suitable for statically relevant concrete repair and restoration measures, capable of being applied in a layer thickness of up to 50 mm, providing an outstanding protection layer for concrete.

Always adhere to the specifications in the respective Technical Guidelines.

## Waterproofing Sewers and Shafts

- 1 **Primer**  
KÖSTER Polysil TG 500
- 2 **Levelling the substrate**  
KÖSTER Sewer  
and Shaft Mortar
- 3 **Surface protection against  
abrasion and chemicals**  
KÖSTER Sewer  
and Shaft Mortar



Resistance to mechanical and chemical stresses often play an important role in sewage pipes and shafts. Surface protection must be able to withstand high and low pH values, as well as abrasive wear in order ensure a long service life.

For this purpose, KÖSTER Sewer and Shaft Mortar was developed. After a thorough surface preparation (e.g. by high-pressure water) has led to a stable substrate and efflorescence has been removed, KÖSTER Polysil TG 500 can be applied as a primer.

Afterwards, KÖSTER Sewer and Shaft Mortar is applied in a layer thickness of 4-30 mm. KÖSTER Sewer and Shaft Mortar is a fiber reinforced, water tight, fast curing and fast setting restoration mortar that develops a high compressive strength, as well as an excellent chemical resistance. Due to its consistency and curing properties, it can be applied below the waterline even under flowing water.

Always adhere to the specifications in the respective Technical Guidelines.

KÖSTER TPO Pro 

Grey can be green 



Since 1982 we have been developing and producing sustainable waterproofing solutions of excellent quality and performance. With the KÖSTER TPO Pro we developed the first roofing membrane that is based on recycled near-to-prime material.



**KÖSTER**  
Z 1

1 kg can  
(C 155 001)

KÖSTER Z 1 is a polymer modified special slurry for the mineral corrosion protection of steel reinforcement.

**Consumption:** Approx. 800 g / m<sup>2</sup> (per coat)



**KÖSTER**  
PSM

30.75 kg combipackage:  
powder component: 24 kg  
bag, silicate component:  
5.5 kg jerrycan, polymer  
component: 1.25 kg jerrycan  
(C 280 030)

Three-component, highly chemical resistant, silicate and polymer-based special mineral mortar for waterproofing horizontal and vertical areas which require very high acid resistance in the range of pH 0 – 8. Suitable for dry substrates, easy to apply.

**Consumption:** Approx. 1.9 kg / m<sup>2</sup> per mm layer thickness



**KÖSTER**  
Z 2

1 kg can  
(C 255 001)

KÖSTER Z2 is a polymer modified special slurry for the mineral corrosion protection of steel reinforcement. KÖSTER Z2 is pigmented red and allows a visual control of the application.

**Consumption:** Approx. 800 g / m<sup>2</sup> (per coat)



**KÖSTER**  
PSM 2S+

10 kg jerrycan  
(C 380 010)

One-component, chemically and thermally resistant coating for mineral surfaces in power plant construction

**Consumption:** Approx. 50 g/m<sup>2</sup>



**KÖSTER**  
Betomor Multi A



Shrink-free, fast curing multi purpose mortar for concrete restoration. In particular suitable for the protection of exposed reinforcement steel: It unites corrosion protection, coarse mortar, fine filler and bonding bridge in one product. For layer thicknesses from 0 – 60 mm.



Corrosion protection (coating)



Coarse mortar



Fine filler



Balcony restoration

**Article No.:**  
C 500 015

**Consumption:**  
Approx. 1.3 kg / l void;  
or approx. 1,3 kg / m<sup>2</sup> per mm layer thickness

**Packaging:**  
15 kg bucket (C 500 015)  
25 kg bucket (C 500 025)

**KÖSTER**  
C-Coat

25 kg bag  
(C 510 025)

For the repair and maintenance of concrete surfaces. Waterproof and tension free after full cure. Synthetically modified, waterproof fine filler for the smoothing of concrete surfaces.

**Consumption:** Approx. 1.7 kg/m<sup>2</sup> per mm layer thickness



**KÖSTER**  
KB-Fix 5

7.5 kg bucket  
(C 515 007)  
15 kg bucket  
(C 515 015)

Waterproof, weatherproof, fast curing mortar with high compressive strength (sets after approx. 5 minutes) for fast installations as well as for small repairs of masonry and concrete. Free of soda and chlorides.

**Consumption:** Approx. 1.8 kg/l void



**KÖSTER**  
Repair Mortar NC

25 kg bag  
(C 535 025)

Suitable for large reprofiling and repair works, has excellent workability characteristics and adhesion to old and new mineral building substrates. KÖSTER Repair Mortar NC is characterized by high chemical and mechanical resistance and compressive strength. Fiber reinforced. Also suitable as substrate preparation for corrosion protection with KÖSTER PSM, e. g. in industrial chimneys, sewer systems, or other concrete structures which are exposed to low pH environments.

**Consumption:** Approx. 1.9 kg/l void as repair mortar; approx. 19 kg/m<sup>2</sup>; per cm of layer thickness of the plaster



**KÖSTER**  
Repair Mortar R4



KÖSTER Repair Mortar R4 is a class R4 concrete repair mortar with excellent adhesion on old and new mineral substrates. KÖSTER Repair Mortar R4 is distinguished by its high chemical and mechanical resistance and can be used for surface preparation in connection with heavy-duty corrosion protection such as KÖSTER PSM. KÖSTER Repair Mortar R4 is tested and approved according to EN 1504-3



Restoration of support beams



Bridge restoration



Large surface restoration



Spray application

**Article No.:**  
C 536 025

**Consumption:**  
Approx. 1.9 kg/l void

**Packaging:**  
25 kg bag (C 536 025)

**KÖSTER**  
Sewer and Shaft  
Mortar

25 kg bag  
(C 590 025)

Water tight, fast curing and fast setting restoration mortar specially designed for sewers and shafts. KÖSTER Sewer and Shaft Mortar develops a high compressive strength, is fiber reinforced, very easy to apply and workable even under flowing water. Approved for drinking water applications.

**Consumption:** Approx. 1.8kg/l void as repair mortar; approx. 18kg/m<sup>2</sup>; per cm layer thickness



**KÖSTER**  
Turbo Mortar F

25 kg bag  
(C 516 025)

KÖSTER Turbo Mortar F is a repair, concrete replacement, and re-profiling mortar with an exceptional strength development: the mortar can be mechanically stressed already after 60 minutes. The consistency can be regulated for vertical or horizontal application. A distinguishing feature of KÖSTER Turbo Mortar F is its low shrinkage.

**Consumption:** Approx. 1.9 kg / l void



**KÖSTER**  
Turbo Mortar M

25 kg bag  
(C 517 025)

KÖSTER Turbo Mortar M is a fiber reinforced repair, concrete replacement, and re-profiling mortar with high chemical and mechanical resistance. KÖSTER Turbo Mortar M can be mechanically stressed after 60 minutes. The consistency can be regulated for vertical or horizontal application. A distinguishing feature of KÖSTER Turbo Mortar M is its low shrinkage.

**Consumption:** Approx. 1.9 kg / l void



**KÖSTER**  
BDM

1000 kg  
(C 731 000)  
30 kg jerrycan  
(C 731 030)

Crystallizing, chloride free sealing agent for the integral waterproofing of concrete elements. KÖSTER BDM combines all three important characteristics for integral waterproofing. It crystallizes, blocks capillaries and makes the concrete waterrepellent. This reduces the water absorbency of the concrete, increases its compressive strength and resistance against chemical attack. It is free of corrosive ingredients and is non-sensitive to mechanical damage to the surface.

**Consumption:** 2 % (mass) of cement content



**KÖSTER**  
BDM Powder

15 Kg bag  
(C 732 015)

Crystallizing concrete sealant with triple action.

**Consumption:** 1% - 2 % (mass) of cement content



**KÖSTER**  
Mortar Accelerator

750 g can  
(C 792 750)

Accelerator for Portland cement based mortars. Accelerates the hardening of mortars, for example for work in low temperatures.

**Consumption:** 1% - 5% (mass) of cement content





**KÖSTER**  
Mortar Boost

10 kg jerrycan  
(C 791 010)

Synthetic liquid for KÖSTER Turbo Mortar systems and other cementitious mortars or concrete. KÖSTER Mortar Boost is free of solvents, plasticizers and fillers. The material increases the density, the compressive and bending strength, and reduces water absorption. Due to the synthetic additive, cured mortars and plasters become considerably more resistant to frost, salts and other aggressive substances.

**Consumption:** For cementitious bonding bridges: approx. 200 g / m<sup>2</sup>. As a mortar additive approx. 0.2 kg per liter of mortar.



C

**KÖSTER**  
Turbo Binding Agent

25 kg bag  
(C 716 025)

KÖSTER Turbo Binding Agent is a special cement based on calcium sulfoaluminate clinker. Mortars made with KÖSTER Turbo Binding Agent develop a very high early strength and in the process exhibit very low shrinkage. They can be quickly worked over and have an early loading capacity. During production approximately 30% less CO<sub>2</sub> is released as compared to a pure portland cement.

**Consumption:** Approx. 1.9 kg / l void



**KÖSTER**  
Turbo Retarding Agent

25 g bag  
(C 718 025)

Additive for the KÖSTER Turbo System. For slowing the setting time of KÖSTER Turbo Mortars to meet individual jobsite requirements.

**Consumption:** One pack per 25 kg KÖSTER Turbo F / M



**KÖSTER**  
Turbo Super Plasticizer

65 g bag  
(C 717 065)

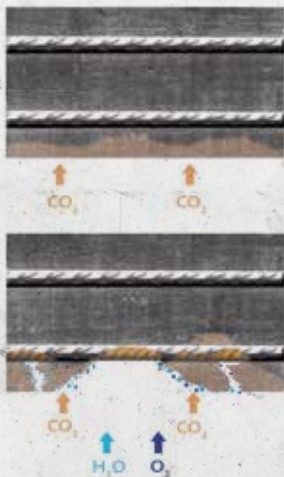
Additive for the KÖSTER Turbo System. For the adjustment of the mortar consistency of the KÖSTER Turbo System to individual requirements on the construction site.

**Consumption:** One pack per 25 kg KÖSTER Turbo F / M

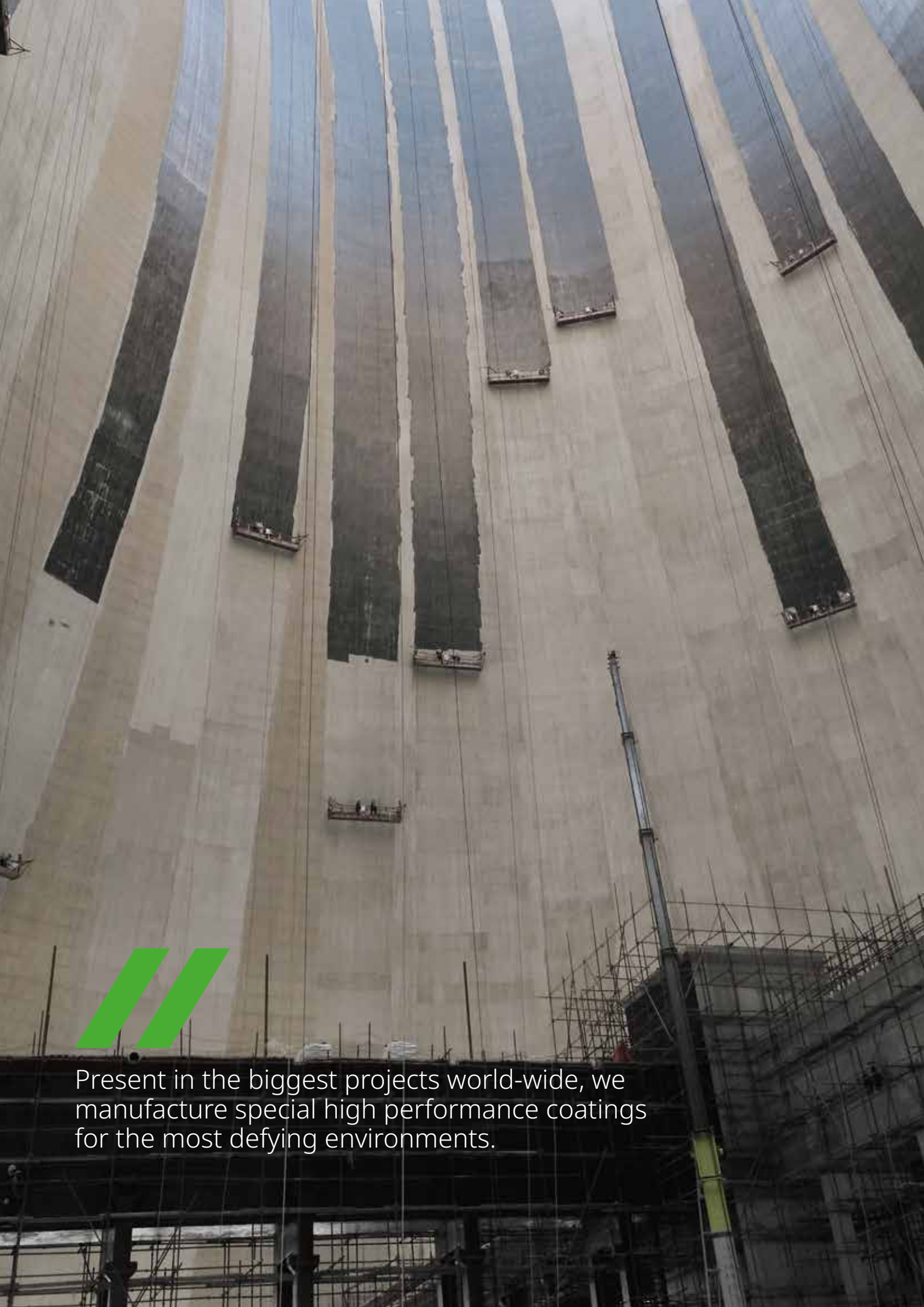


Good to know:

Carbonation



Carbonation of concrete is a chemical reaction which occurs near the surface of concrete. Calcium hydroxide Ca(OH)<sub>2</sub> is formed during cement hydration. This provides healthy concrete its alkaline environment with a pH value of > 12.6 and leads to the formation of a passivation layer. This layer formed of iron hydroxide Fe(OH)<sub>2</sub> protects reinforcement steel from corrosion. Carbonation occurs when calcium hydroxide Ca(OH)<sub>2</sub> reacts with carbon dioxide CO<sub>2</sub> in the air to form calcium carbonate CaCO<sub>3</sub>. The continuous consumption of Ca(OH)<sub>2</sub> leads to a drop in pH levels causing the passivation layer that usually covers and protects reinforcement steel from corrosion to become unstable. As a result, carbonation leads to corrosion and the formation of rust. On the other hand, carbonation results in a decrease of the porosity and increases the compressive strength of concrete. Carbonation occurs in concrete whenever carbon dioxide is present and is not harmful to concrete or cement stone.



Present in the biggest projects world-wide, we manufacture special high performance coatings for the most defying environments.





# SL

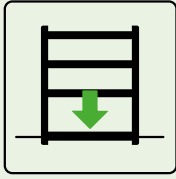
## Self leveling underlayments

Self leveling mineral underlayments, floor  
patching materials, corresponding primers





## Self leveling underlayments



Whether installing flooring systems and coatings in new or existing buildings, substrates generally must first be levelled. The goal is to provide a level and highly resilient surface suitable for a broad variety of flooring systems.

### Fast-setting self-leveling underlayment on mineral and non-absorbent substrates

- 1 **Primer**  
KÖSTER SL Primer  
KÖSTER VAP I 06
- 2 **Floor coating**  
KÖSTER SL Premium



Whether installing flooring systems and coatings in new or existing buildings, substrates generally must first be levelled. The goal is to provide a level and highly resilient surface suitable for a broad variety of flooring systems.

In order to achieve excellent bonding to the following underlayment, the prepared mineral substrate is primed with KÖSTER SL Primer. KÖSTER SL Primer works as a bonding agent to provide a homogeneous absorbency and to bind residual dust. KÖSTER SL Primer cures rapidly and is quickly recoatable.

The leveling is then carried out with KÖSTER SL Premium in one working step in layer thicknesses between 2 and 15 mm; in depressions up to 30 mm. KÖSTER SL Premium is a high quality, self-leveling underlayment for the repair of concrete

and existing coated floors. The material is characterized by a high compressive strength and cures with almost no shrinkage, thus preventing cracking. Due to its excellent flowability, KÖSTER SL Premium is very easy and safe to work with.

Additionally, KÖSTER SL Premium is suitable for non-absorbent substrates, e. g. on floors that have been protected with KÖSTER VAP I 2000 for moisture control, on existing epoxy coatings or even tiles. As a bonding agent, KÖSTER VAP I 06 Primer is used. KÖSTER SL Premium allows for an early use after application: After 3-4 hours foot traffic is allowed, tiles can be installed after 5 hours, and after 24 hours curing time the material is even trafficable with soft tires.

Always adhere to the specifications in the respective Technical Guidelines.

## Self-leveling underlayment on wooden substrates



1 Primer  
KÖSTER VAP I 06

2 Floor coating  
KÖSTER SL Flex

SL

Hardwood floors are often found in older buildings and present a difficult substrate for additional flooring surfaces during renovation. KÖSTER SL Flex is a mineral based underlayment for application to a wide variety of substrates including concrete floors, screeds, asphalt, steel, tile, or wooden floors. The material is flexible enough to accommodate the movements of the wooden surface as well as high localized pressure resulting from furniture or dropped items.

Before installation, the substrate has to be free of dust and bonding inhibiting substances. When applying over tongue and groove wooden floors, cleaning agent and care product residues such as wax

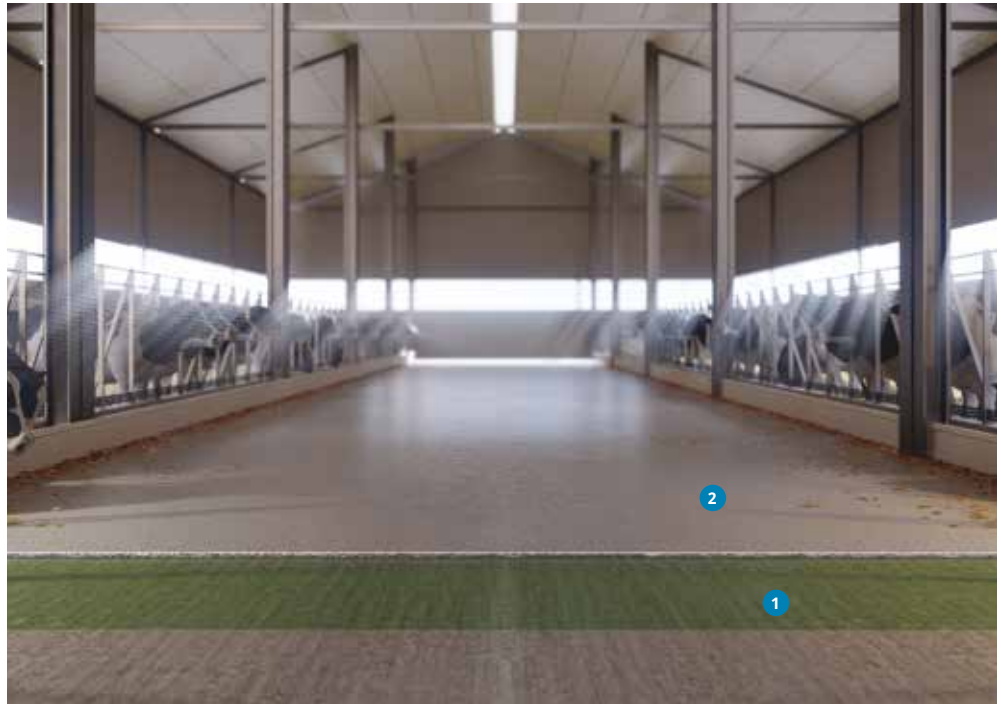
must be completely removed, if necessary, sanded off. Painted areas must be sanded and subsequently vacuumed. Floor boards must be firmly attached to the joists with screws. Open or wide joints between the boards, defects, and hollows have to be filled with an acrylic jointing compound.

The prepared wooden surface is then primed with the single component water-based bonding agent KÖSTER VAP I 06 Primer. KÖSTER SL Flex stabilizes the substrate due to its high flexural strength. As a result, the substrate warps and bends less, allowing for the installation of rigid flooring materials such as tile.

Always adhere to the specifications in the respective Technical Guidelines.

## Self-leveling protective floor with high chemical resistance

- 1 **Primer**  
KÖSTER SL Primer
- 2 **Floor coating**  
KÖSTER SL Protect



Protecting exterior surfaces can also be achieved by installing a KÖSTER self-leveling underlayment. In order to achieve excellent bonding to the following underlayment, the prepared substrate is primed with KÖSTER SL Primer. KÖSTER SL Primer works as a bonding agent to provide a homogeneous absorbency and to bind residual dust. KÖSTER SL Primer cures rapidly and is quickly recoatable.

KÖSTER SL Protect is an early loadable, mineral based self-leveling underlayment which provides high resistance to chemical and mechanical stresses. It can be used as a directly trafficable layer over uneven or

coarse concrete and cementitious screeds. Due to its high chemical resistance, it is used to protect against light and medium corrosion and serves as a slowly reacting sacrificial layer in areas of high chemical stress.

KÖSTER SL Protect is further used for fast repairs and protection in agricultural, industrial, workshop, production facilities, commercial, and private use buildings. KÖSTER SL Protect is self-leveling from 5 mm to 30 mm and can be feathered out to 2 mm with suitable tools.

Always adhere to the specifications in the respective Technical Guidelines.



## KÖSTER SL Primer

5 kg jerrycan  
(SL 189 005)

A transparent curing, low viscosity primer with a slightly sticky surface. KÖSTER SL Primer reduces the absorbency of mineral surfaces such as concrete and screed and equalizes differential absorbency rates in the substrate. It reduces the bubbling effect when working with KÖSTER self leveling floor products. KÖSTER SL Primer is solvent, plasticizer, and filler free, water resistant, it will not be washed or rained away after curing.

**Consumption:** Approx. 50 – 150 g / m<sup>2</sup>, dependent on substrate characteristics



## KÖSTER VAP I 06

1 kg bottle  
(SL 131 001)  
9.5 kg jerrycan  
(SL 131 009)

Ideal and necessary for priming cured KÖSTER VAP I Systems for the subsequent installation of all cementitious self-leveling underlayments. KÖSTER VAP I 06 Primer is a unique, water based, single component material for priming absorbent and non-absorbent substrates. Suitable as a primer under terrazzo, marble, and ceramic tiles.

**Consumption:** Approx. 50 - 100 g / m<sup>2</sup> depending on substrate characteristics



## KÖSTER SL Flex

25 kg bag  
(SL 284 025)

KÖSTER SL Flex is a high quality, fast setting, mineral based underlayment with excellent bonding characteristics also on smooth and dense substrates. KÖSTER SL Flex is applicable to a wide variety of substrates (especially wooden substrates) and hardens hydraulically and tension free within a few hours. It hardens to a level, high strength surface that allows for a change in building use, such as carpet or tiles on top of old wooden floors. KÖSTER SL Flex is easy to mix and install, is pump- and pourable, and during its pot life has a low viscosity and is self-leveling. KÖSTER SL Flex can be applied in layer thicknesses between 2 and 15 mm, and in depressions up to 30 mm. It hardens quickly and crack free with up to 90 % reduced shrinkage.

**Consumption:** approx. 1.6 kg powder / m<sup>2</sup> per mm layer thickness



SL



## KÖSTER SL Premium



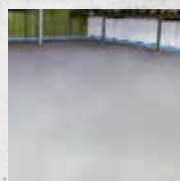
KÖSTER SL Premium is a high quality, fast setting underlayment that hardens tension free and provides a smooth, leveled surface ready to receive subsequent flooring systems. It hardens within hours to a smooth, strong, and multifunctional leveling layer. It may be applied onto a variety of substrates. KÖSTER SL Premium can be applied in layer thicknesses between 5 and 15 mm, can be feathered out to 2 mm, and installed in depressions up to 30 mm.



Primer:  
KÖSTER SL Primer or  
KÖSTER VAP I 06



Easy application



Very robust



Coating after  
24 hours

**Article No.:**  
SL 280 025

**Consumption:**  
Approx. 1.5 kg / m<sup>2</sup> /mm layer  
thickness

**Packaging:**  
25 kg bag

**KÖSTER**  
SL Protect

25 kg bag  
(SL 286 025)

KÖSTER SL Protect is a mineral based self-leveling underlayment with high resistance to chemical and mechanical stresses. It is an early loadable, directly useable leveling layer over uneven or coarse concrete and cementitious screeds. Due to its high chemical resistance it is used to protect against light and medium corrosion and serves as a slowly reacting sacrificial layer in areas of high chemical stress. KÖSTER SL Protect is further used for fast repairs and protection in agricultural, industrial, business, workshop, production facilities, and private use buildings.

**Consumption:** Approx. 1.9 kg / m<sup>2</sup> per mm layer thickness



**KÖSTER**  
Swellable Grout

25 kg bag  
(SL 252 025)

KÖSTER Swellable Grout is a fine-grained, normal setting grout mortar, formulated with a moderately expanding component. It provides a good flow spread, is pourable, and has a pot life of at least 45 mins. KÖSTER Swellable Grout is resistant to de-icing and other harmful salts as well as oils and lubricants.

**Consumption:** Approx. 1.9 kg / l void



**KÖSTER**  
VGM Fast

25 kg bag  
(SL 251 025)

Fast curing grout mortar with high final compressive and flexural strength and very high slump flow for all construction and repair applications. Ready to receive traffic after 3 hours. Fields of application include road surfaces, warehouse ramps, man holes, or as a grout for installations and anchor holes.

**Consumption:** Approx. 1.9 kg / l void



**KÖSTER**  
SL Flow Test Board

piece  
(SL 900 001))

Flow test board for self levelling mortars (test cylinder included)



**Good to know:** Nonporous Substrates



Wood surfaces, tiles, marble, ceramic, mastic asphalt, steel, or synthetic resin coatings (such as the KÖSTER VAP I 2000 System) are nonporous substrates. That is why KÖSTER developed KÖSTER VAP I 06 Primer in order to provide maximum adhesion between nonporous substrates such as KÖSTER VAP I 2000 and the cementitious leveling compounds. As a result, even old tile or wooden surfaces can be recoated quickly and cost effectively.





CT

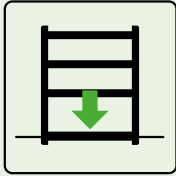
## Coatings

Floor and corrosion protection coatings,  
moisture control systems





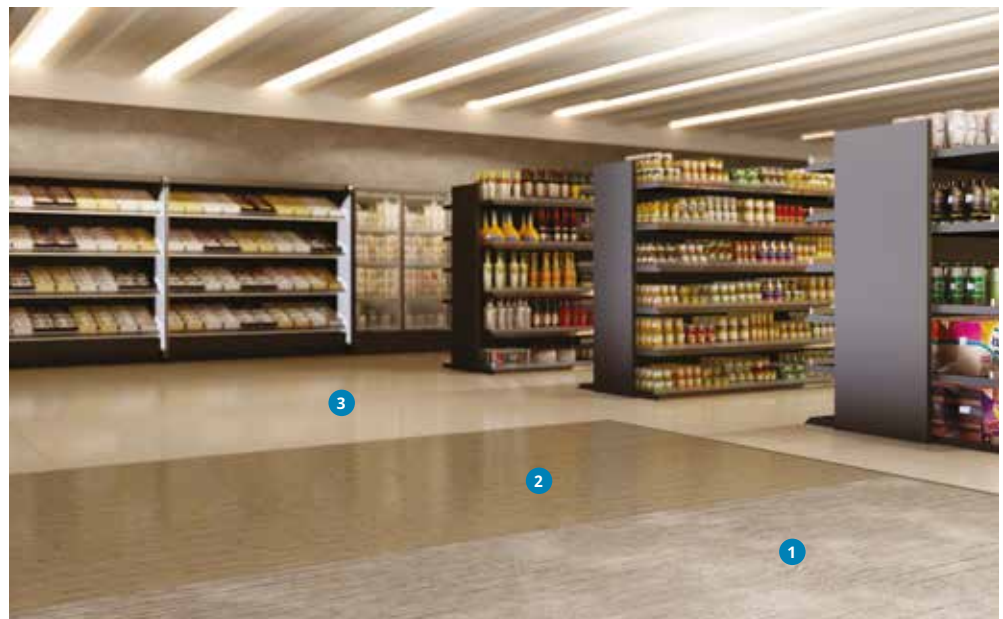
## Floor coatings



Floor coatings, for example on garages, industrial floors or canteen kitchens usually demand high standards on their resistance, as well as their visual appearance. These floors can be permanently protected against mechanical damage and the penetration of liquids with colored protective coatings.

## Moisture Mitigation System

- 1 Moist concrete with high alkalinity
- 2 Vapour barrier  
KÖSTER VAP I 2000  
KÖSTER VAP I 2000 UFS
- 3 Floor coating  
KÖSTER LF-VL  
KÖSTER PS Flex



Moisture penetration through concrete slabs can cause severe problems for subsequent flooring systems. High concentrations of moisture and alkalinity (levels determined through testing) can lead to the deterioration of flooring adhesives and delamination of coatings by osmotic action. Even with relatively low moisture emissions (MVER), elevated alkalinity can compromise even the toughest flooring system adhesives. To avoid this problem, the concrete slab should be primed with a material that will tightly bond to the concrete under these very adverse conditions.

KÖSTER VAP I 2000 is a special material

which fulfils all of these functions; it has very low permeance ASTM E96 wet: .04-.09, excellent bonding characteristics and is resistant to sustained high alkalinity (pH of 14). The KÖSTER VAP I 2000 vapor reduction system is applied to shot blasted, solid concrete substrates that are free of bond inhibiting substances. After curing, a covering layer (i.e. KÖSTER LF-VL) or any other type of final flooring may be applied. If an underlayment is required use KÖSTER SL Premium together with KÖSTER VAP I 06 Primer on top of the moisture mitigation system.

Always adhere to the specifications in the respective Technical Guidelines.

## Floor coatings for balconies, terraces, commercial and private areas



- 1 Substrate
- 2 Levelling  
KÖSTER SL Protect
- 3 Floor coating  
KÖSTER CT 227 1C Silane
- 4 Decorative layer  
KÖSTER Color-Chips
- 5 Broadcast fixation  
KÖSTER CT 327 1C Sealer
- 6 Protection  
KÖSTER Anti-Slip  
Granulate 20  
KÖSTER Top Coat 1C Matte

CT

Floor coatings in exterior application on balconies and terraces, as well as in commercial and private areas, require a special system that provides adequate protection and offer the necessary safety for the users. KÖSTER satisfies all these requirements with the universally applicable KÖSTER CT 227 1C Silane system.

KÖSTER CT 227 1C Silane is a one component, pigmented, open to vapor diffusion, environmentally friendly, crack-bridging, elastic and easy-to-use sealant with very good covering capacity for indoor and outdoor use on mineral substrates, such as e.g., concrete, cement screed, mineral plaster and on stable old coatings.

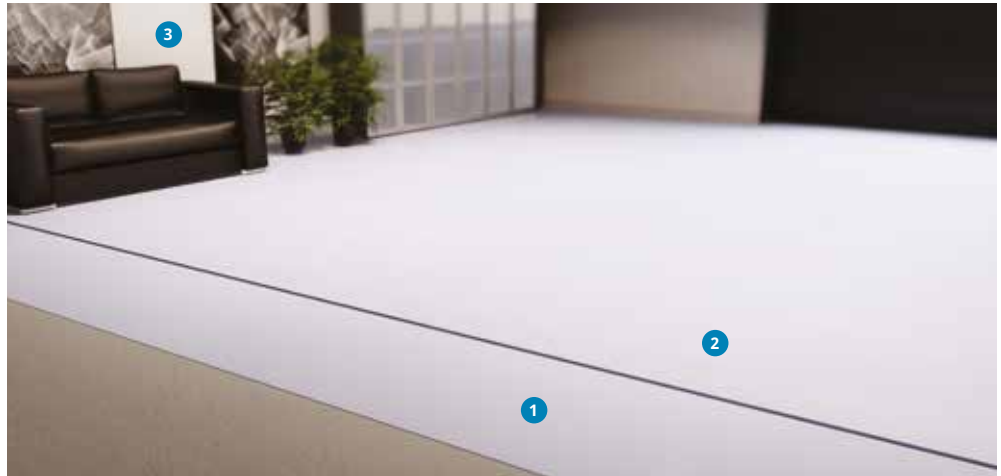
The system is resistant to medium chemical and mechanical loads, UV and weather resistant and it can be applied in a wide variety of application compositions in private and commercial areas.

The versatility of the coating is given by the use of its system components: KÖSTER CT 227 1C Silane is the ready-to-use main coating system. KÖSTER Flex Fabric is a highly flexible, tear-resistant plastic fabric for use in indoor and outdoor areas at risk of tearing. KÖSTER CT 327 1C Sealer is a one-component, crack-bridging, open to vapor diffusion, UV and weather-stable, solvent-free transparent sealant. Due to their good UV and chemical resistance, KÖSTER Color Chips are suitable for surface designs. KÖSTER Top Coat 1C Matte is a transparent, easy-to-clean, matt sealant for the finish look.

Always adhere to the specifications in the respective Technical Guidelines. For detailed installation guidelines, consult the latest System Data sheet.

## Floor coatings which are exposed to moderate stresses

- 1 **Primer**  
KÖSTER CT 215  
Universal Floor
- 2 **Floor coating**  
KÖSTER CT 215  
Universal Floor
- 3 **Surface protection (wall)**  
KÖSTER Acrylic Paint  
KÖSTER Silicone  
Paint White



The KÖSTER Universal Floor System is an easy to apply coating and sealing system for mineral substrates for light to moderate mechanical and chemical stresses in commercial and private real estate. Light stresses are e.g., when used in a storage room. Medium stresses arise e.g., when loaded with forklifts or pallet trucks, driving in private garages or the effects of de-icing salt from vehicles.

As a water-based epoxy resin, KÖSTER CT 215 Universal Floor is also suitable for coating damp substrates. In cases where moisture can be trapped behind the coating, such as non-waterproofed floor slabs or balconies, KÖSTER VAP I 2000 should be applied to protect against moisture and water vapor transmission. The epoxy resin KÖSTER CT 215 Universal Floor is applied to the prepared substrate as primer, as well as

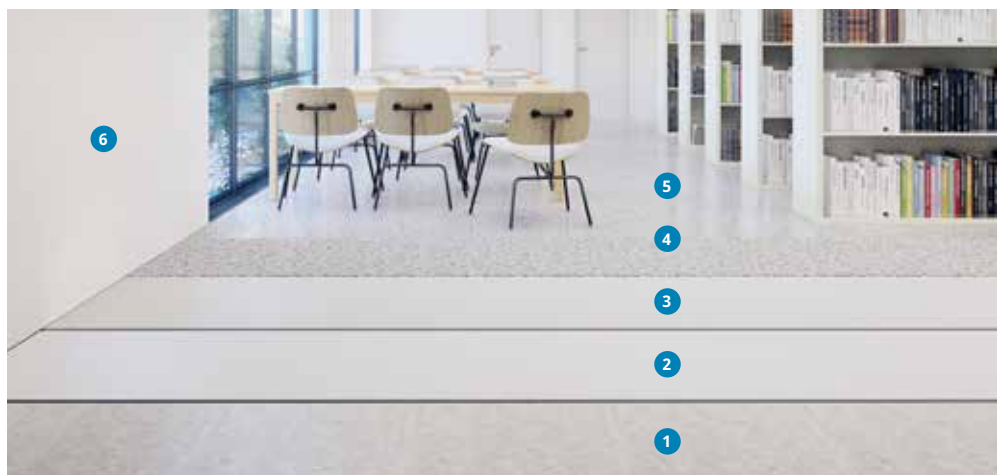
a leveling flow coat. With the incorporation of KÖSTER Filler fine, layer thicknesses of up to 2 mm can be achieved.

Through the use of KÖSTER Color Chips in contrast and rejection broadcast and the incorporation of KÖSTER Anti-Slip Granules 20, a wide variety of individual surface structures and designs can be achieved. When applied outside, the KÖSTER CT 215 Universal Floor must be fully broadcasted to rejection and sealed. By medium stresses, the two-component sealant KÖSTER TS Transparent must be used.

Surface protection for the walls can be easily achieved with KÖSTER Acrylic Paint or KÖSTER Silicone Paint White.

Always adhere to the specifications in the respective Technical Guidelines. For detailed installation guidelines, consult the latest System Data sheet.

- 1 **Substrate**
- 2 **Primer**  
KÖSTER CT 215  
Universal Floor
- 3 **Floor coating**  
KÖSTER CT 215  
Universal Floor
- 4 **Decorative layer**  
KÖSTER Color-Chips
- 5 **Protection**  
KÖSTER Anti-Slip Granulate 20  
KÖSTER TS transparent
- 6 **Surface protection (wall)**  
KÖSTER Acrylic Paint  
KÖSTER Silicone Paint White





## Floor coatings which are exposed to heavy stresses



- 1 Substrate
- 2 Primer  
KÖSTER CT 121  
KÖSTER VAP I 2000
- 3 Slip resistance (optional)  
Quartz Sand
- 4 Floor coating  
KÖSTER LF-VL
- 5 Top Coat  
KÖSTER LF-VL

CT

Floors in industry and production facilities are subjected to a multitude of stresses, especially mechanical stresses through forklift traffic, machines, or shocks through falling objects.

Concrete floors subjected to such stresses are covered with the industrial floor coating KÖSTER LF-VL.

KÖSTER LF-VL is a solvent free, self-leveling and pigmented floor covering for industrial uses with a high abrasion resistance.

The substrate must be prepared, dry, clean, and freed of all bond inhibiting substances. It is then primed with KÖSTER CT 121 or when moisture is present in or

below the slab with KÖSTER VAP I 2000; and broadcasted with quartz sand.

The top layer can also be adjusted for various slip resistance classifications by broadcasting it with kiln dried silica sand or various top coats. The application of KÖSTER LF-VL, can then follow as a thin layer to create a slip resistance or in various millimeter. The complete system can be installed with low emission materials according to the AgBB guidelines and can therefore, be installed in critical interiors such as schools or hospitals.

Always adhere to the specifications in the respective Technical Guidelines.

## ESD Flooring System (electrostatic discharge)

- 1 **Primer**  
KÖSTER CT 121
- 2 **Conductive Coating**  
KÖSTER ESD 175
- 3 **Ground**  
KÖSTER ESD 476
- 4 **Top Coat**  
KÖSTER ESD 275



In areas where electronics are manufactured or in areas that can be electrostatically charged by people or machines, the floor must have a sufficiently high electrostatic dissipation to eliminate the risk of damage. For these environments, ESD protection areas are required, (ESD : Electrostatic Discharge) where special ESD coatings are installed.

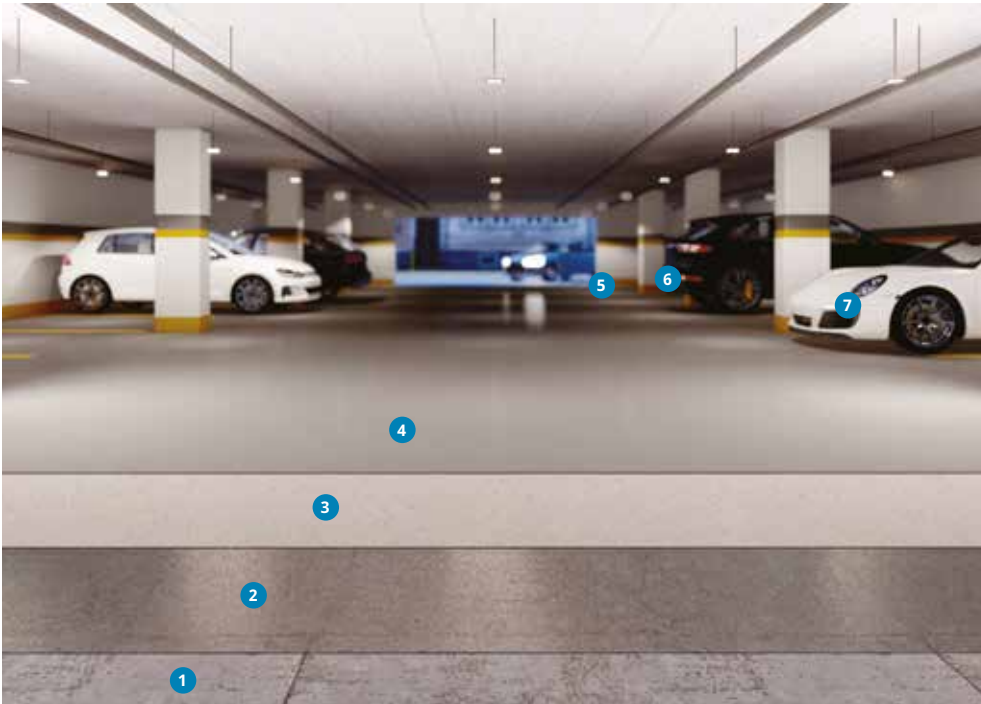
The KÖSTER ESD System has a structure that provides maximum protection against unwanted electrical charges. The product system consists of the conductive layer KÖSTER ESD 175, which is a solvent free epoxy resin dispersion that is simply applied with a roller. After only two hours, it is cured and can be connected to the

building grounding with the adhesive copper tape KÖSTER ESD 476.

Afterwards, the solvent free, self-levelling coating KÖSTER ESD 275 is applied as the top coat. After cure it not only protects the concrete from chemical and mechanical stresses, it also maintains the high electrostatic dissipation required for an ESD protected area. The KÖSTER ESD System has been tested according to the DIN EN 61340-4 by the KIWA Polymer Institute Ltd. The excellent test results allow the KÖSTER ESD System to be used in rooms with very high requirements.

Always adhere to the specifications in the respective Technical Guidelines.

## Parking garages and trafficked surfaces with high mechanical stresses with the KÖSTER OS 8 System



- 1 Substrate
- 2 Primer  
KÖSTER CT 121  
Quartz Sand 0.06 - 0.36 mm
- 3 Broadcast  
Quartz Sand 0.4 - 0.8 mm
- 4 Top Coat  
KÖSTER CT 221

CT

Parking garages and trafficked areas have especially high requirements on coatings. The KÖSTER OS 8 System is a highly resistant, easy to apply solution.

Surface preparation is critical and should result in a clean, dry surface free of all bond-inhibiting materials. KÖSTER CT 121 mixed with Quartz Sand 0.06 - 0.36 mm (1:1) is used as a primer and applied with a standard trowel. Immediately afterwards, the primed surface broadcasted with Quartz Sand 0.4 - 0.8 mm. Through the

broadcast with quartz sand, the mechanical resistance is increased and a higher slip resistance is achieved.

After excess Quartz Sand has been removed, the top coat consisting of the solvent-free KÖSTER CT 221 is applied. The KÖSTER OS 8 system has been tested according to the DIN EN 1504-2 guideline and fulfills the supplementary standard DIN V 18026.

Always adhere to the specifications in the respective Technical Guidelines.



## Hygienic protective coating for the food production industry

### 1 Substrate

### 2 Floor coating and underlayment

KÖSTER UC 100

KÖSTER UC 300

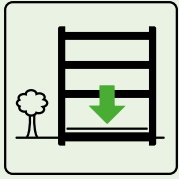


KÖSTER UC combines properties of mineral floor leveling materials (leveling and repair of mineral substrates) and reactive resin coatings (protection against penetrating substances and damage as well as decorative design) in one product. It is based on a polymer binder (polyurethane) and mineral fillers. KÖSTER UC Systems can therefore be used in a wide variety of fields of application with high demands on the coating, such as in the food production industry (production, kitchens), as well as in chemical and pharmaceutical industries. KÖSTER UC can be installed in new construction projects (retail) and in the renovation of production areas which must be quickly open to traffic.

In order to ensure a successful application, the substrate must be properly prepared by shotblasting. The three-part KÖSTER UC System is made up of: KÖSTER UC 100, a self-leveling urethane cement flooring system for layer thicknesses between 3 and 9 mm; and KÖSTER UC 300, a very thin-layer urethane cement flooring system, which can be used as a primer or top coat, depending on the circumstances. Additionally, KÖSTER UC Pigment Paste can be used to color any of the KÖSTER UC flooring system to meet decorative requirements.

Always adhere to the specifications in the respective Technical Guidelines.

## Corrosion protection



Corrosion protection is of primary concern, particularly in the industry and agriculture sectors, where there is a variety of areas with increased requirements; for example, such as high resistance against acids and alkalis.

In order to guarantee a long service life floor in production areas, warehouses or surfaces in tanks, they must all be protected with long-term solutions. KÖSTER provides systems for the effective protection of mineral substrates as well as steel surfaces.

## Corrosion protection of steel



**1 Corrosion protection**  
KÖSTER Corrosion Protection

**2 Corrosion protection (crack bridging)**  
KÖSTER CT 228 Flex

CT

The corrosion protection of steel can easily be accomplished with a two-layer coating of KÖSTER Corrosion Protection, applied by brush or roller. KÖSTER Corrosion Protection is a 2 component, solvent free, epoxy based protective coating with excellent adhesion to steel and concrete. It can be used as a surface protection in facilities which are exposed to elevated chemical and mechanical stresses such as agricultural plants, sewage treatment plants or tanks.

The substrate must be dry, solid, and free of loose particles and bond inhibiting substances such as oil and grease. Steel surfaces must be prepared according to DIN EN ISO 12944-4 (min. Sa 2 ½, average roughness RY5 min. 50 µm)

KÖSTER Corrosion Protection serves also

as a primer for steel structures in hydraulic steel construction which require a crack bridging, flexible coating, like KÖSTER CT 228 Flex.

KÖSTER CT 228 Flex is a two-component epoxy resin product which, due to its tough elastic properties, can be used for the mechanical and chemical surface protection of concrete and steel structures. The material is characterized by its high surface hardness and is able to bridge cracks forming in the ground.

Always adhere to the specifications in the respective Technical Guidelines. Because corrosion protection on steel requires experience and should be analyzed case by case, please contact our technical consultants for further instructions.

**KÖSTER**  
CT 121

25 kg combipackage;  
1 kg combipackage;  
6 kg combipackage  
(CT 121 025)

KÖSTER CT 121 is a solvent-free primer used for priming of mineral surfaces before the application of KÖSTER CT 221. It is a part of the the KÖSTER OS 8 System.

**Consumption:** 400 g / m<sup>2</sup> (0.4 mm layer thickness)



**KÖSTER**  
CT 327 1C Sealer

5 kg Bucket  
(CT 327 005)

One-component, flexible, UV and weather-resistant, solvent-free, transparent top sealer.

**Consumption:** Approx. 0.1 - 0.2 kg / m<sup>2</sup> per layer (min. 2 layers)



**KÖSTER**  
ESD 175

8 kg combipackage  
(CT 175 008)

KÖSTER ESD 175 is a water based epoxy dispersion for priming floors to be coated with KÖSTER ESD 275. The KÖSTER ESD System creates an ESD protected area according to the norms DIN EN 61340 and DIN EN 61340-1, supplementary sheet.

**Consumption:** Approx. 100 g / m<sup>2</sup>



**KÖSTER**  
Polysil TG 500 2C

13.5 kg combipackage  
(CT 117 013)

Low viscosity epoxy sealant for waterproofing cooling towers, bridge decks, and other civil engineering structures. Due to the good heat resistance of the cured KÖSTER Polysil TG 500 2C, asphalt can be installed directly onto the fully cured coating. It is resistant to high mechanical stresses. Fields of application include waterproofing of civil engineering stuctures and corrosion protection of concete exposed to moderate chemical stresses

**Consumption:** Approx. 0.2 kg / m<sup>2</sup>



**KÖSTER**  
CMC

6 kg combipackage;  
A component 5 kg;  
B component 1 kg  
(CT 280 005)

Epoxy mortar with very good adhesion to all mineral substrates and to stainless steel. Solvent free. KÖSTER CMC resists high mechanical and chemical stresses and is therefore used as a protective coating for heavy duty corrosion protection.

**Consumption:** 1.7 kg / m<sup>2</sup> per mm layer thickness





**KÖSTER**  
Corrosion Protection

6 kg combipackage  
(CT 283 006)

KÖSTER Corrosion Protection is a 2 component, solvent free, epoxy based protective coating with excellent adhesion to steel and concrete. It can be used as a surface protection in facilities which are exposed to elevated chemical and mechanical stresses such as agricultural plants, sewage treatment plants or tanks.

**Consumption:** Approx. 650 g / m<sup>2</sup> (Stainless steel, 2 layer application, 0.5 mm layer thickness) or approx. 130 g / m<sup>2</sup> (100 µm) as primer for KÖSTER CT 228 Flex. Consumption on concrete 1.3 kg/m<sup>2</sup>/mm. Actual consumption depending on surface roughness. Maximum 2 mm layer



CT

**KÖSTER**  
CT 215  
Universal Floor

3 kg  
(CT 215 003)

10 kg  
(CT 215 010)

Special universal coating that combines a colored primer, coating and sealing system for light to medium mechanical loads in the same product.

The system is open to water vapor diffusion, therefore suitable for damp surfaces.

This special epoxy can also be filled with a special filler to achieve higher layer thicknesses in self-leveling flooring system. Tested slip resistance.

Layer thicknesses of 0.2 – 2.0 mm

**Consumption:** Depending on the application: Approx. 0.2 - 0.3 kg/m<sup>2</sup> or up to 1.0 kg/m<sup>2</sup>/mm



**KÖSTER**  
CT 221

25 kg combipackage  
(CT 221 025)

KÖSTER CT 221 is a rigid, highly mechanically resistant and chemically resistant top coat which is used to protect concrete not at risk of cracking.

Along with KÖSTER CT 121 the coating conforms to a protective coating in accordance with DIN 1504-2, DIN V 18026 and DIN EN 13813 ("OS 8").

**Consumption:** 1.5 kg / m<sup>2</sup> per mm layer thickness



**KÖSTER**  
CT 225  
Bridge Deck Coating

20 kg metal pail  
combipackage  
(CT 225 020)

Priming and coating epoxy resin for concrete road sections, bridge decks, and civil engineering structures for overworking with mastic asphalt according to ZTV-ING (part 7)

**Consumption:** Primer: Approx. 400 to 500 g / m<sup>2</sup> depending on porosity of the substrate. Top coat: Approx. 500 g / m<sup>2</sup> per layer.



**KÖSTER**  
CT 227 1C Silane

10 kg bucket  
(CT 227 010)

Universally applicable, environmentally friendly, elastic flooring sealant with very good covering capacity. Very good adhesion to all mineral based surfaces.

Resistant to medium mechanical loads. UV and weather resistant.

**Consumption:** 400 – 800 g/m<sup>2</sup>



**KÖSTER**  
ESD 275

11.43 kg combipackage;  
Component A 10 kg;  
Component B 1.43 kg  
(CT 275 026)

KÖSTER ESD 275 is a rigid, solvent free, self leveling surface coating for floor areas which are to be protected by an ESD zone. The KÖSTER ESD System creates an ESD protected floor for areas that have to be protected from static discharge such as electronic areas, in the automobile industry, and laboratories, and areas that have to be protected against mechanical and chemical stresses. The KÖSTER ESD System fulfils the norms DIN EN 61340 parts 1 and 5, and is therefore also qualified as personal grounding protection.



**Consumption:** 1.5 kg / m<sup>2</sup> / mm layer thickness

**KÖSTER**  
LF-VL

26.8 kg combipackage  
(CT 271 026)

Decorative coating for industrial floors. It is a solvent free, self-leveling product with high abrasion resistance. The color is pebble grey on the basis of RAL 7032, other colors are available on request.



**Consumption:** 2.6 kg / m<sup>2</sup> (2 mm total layer thickness)

**KÖSTER**  
CT 228 Flex

6 kg combipackage  
(CT 228 006)

2-component, viscoplastic, brushable, rollable and sprayable epoxy resin with tough elastic properties, used for heavy-duty corrosion protection of concrete and steel surfaces.



For industrial plants and agricultural structures such as wastewater treatment plants, biogas plants and similar.

**Consumption:** Concrete: min. 1.2 kg / m<sup>2</sup> per mm layer thickness; Steel: 650 g / m<sup>2</sup> (500 µm)

**KÖSTER**  
UC 100

26.1 kg combipackage:  
Component A 4.9 kg;  
Component B 4.2 kg;  
Component C 17 kg  
(CT 251 026))

Self-leveling floor coating with high chemical resistance and high abrasion resistance. Food safe and resistant against temperature shocks. Three component polyurethane cement floor coating. KÖSTER UC 100 is applied in a layer thickness between 3 and 9 mm.



**Consumption:** 1.53 kg / m<sup>2</sup> per mm layer thickness

**KÖSTER**  
UC 300

10 kg combipackage:  
Component A 4.45 kg;  
Component B 3.70 kg;  
Component C 1.85 kg  
(CT 253 010)

Primer and top coat in one product. KÖSTER UC 300 is solvent free and ready to use. When mixed with KÖSTER UC Pigment Paste, it can be used as a decorative top coating for KÖSTER UC 100.



**Consumption:** 600 - 800 g / m<sup>2</sup> (depending on surface roughness)

**KÖSTER**  
VAP I 2000 UFS

2.95 kg combipackage  
(CT 234 002)

10 kg combipackage  
(CT 234 010)

Ultra fast setting vapor barrier for priming unsealed interior concrete floors under vapor tight flooring. Curing time 2-3 hours. The material reduces Moisture Vapor Emission Rates (MVER) and alkalinity to levels acceptable for most resilient or epoxy flooring systems as well as other vapor tight floorings such as sheet vinyl, VCT, rubber, wood, ceramic, sports, solid backed carpeting, epoxy, ESD and almost all other types of finished flooring.

**Consumption:** Approx. 500 g / m<sup>2</sup>



**KÖSTER**  
TS transparent

1 kg combipackage  
(CT 320 001)

6 kg combipackage  
(CT 320 006)

Surface sealant for concrete or for broadcasted coatings such as, KÖSTER UC 100, KÖSTER LF-VL and the KÖSTER CT 215 Universal Floor.

KÖSTER TS transparent distinguishes itself through high chemical, mechanical, and ultraviolet resistance. Due to its fast curing time the surface can be opened for traffic after 24 hours.

**Consumption:** Approx. 0.1 kg / m<sup>2</sup> - 0.2 kg / m<sup>2</sup>



CT

**KÖSTER**  
Anti-Slip  
Granulate 20

200 g  
(CT 411 200)

KÖSTER Anti-Slip Granulate 20 is a chemical resistant polymer granulate, which increases slip resistance of water-based and solvent free top coatings. Varying the dosage will alter the grade of slip resistance.

**Consumption:** 2% to 2.5%, depending on required anti-slip category (see System Data Sheet)



**KÖSTER**  
Color-Chips

5 kg white, light grey, grey  
(CT 429 001)

5 kg black, grey  
(CT 429 002)

5 kg black, grey, blue  
(CT 429 003)

5 kg white, beige, brown  
(CT 429 004)

UV and chemically resistant decorative colored chips for broadcasting into the surface of KÖSTER LF-VL, KÖSTER EM-VS, and for use with the KÖSTER CT 215 Universal Floor. 2 mm, light grey, other colors on request.

**Consumption:** Minimum 50 g / m<sup>2</sup> as a decorative, non-covering surface decoration. Approx. 300 g / m<sup>2</sup> when broadcasting to rejection.



**KÖSTER**  
ESD 475

0.6 mm x 9 mm, 25 m roll  
(CT 475 025)

Self adhesive, conductive acrylic adhesive, 0.6 mm total thickness, 9 mm wide, and 25 m long.





**KÖSTER**  
ESD 476

piece  
(CT 476 001)

Ground connection for the KÖSTER ESD System with 1m adhesive copper tape



Quartz Sand

25 kg bag  
(CT 481 025 to CT 488 025)

Kiln dried quartz sand available in different granular sizes:

- 0.06 - 0.36 mm
- 0.18 - 0.50 mm
- 0.20 - 0.80 mm
- 0.40 - 0.80 mm
- 0.35 - 1.50 mm
- 0.70 - 1.20 mm
- 1.00 - 2.00 mm
- 2.00 - 3.00 mm



**KÖSTER**  
Vap I 2000



Vapor barrier for priming unsealed interior concrete floors under vapor tight flooring.

The material reduces Moisture Vapor Emission Rates (MVER) and alkalinity to levels acceptable for most resilient or epoxy flooring systems as well as other vapor tight floorings such as sheet vinyl, VCT, rubber, wood, ceramic, sports, solid backed carpeting, epoxy, ESD and almost all other types of finished flooring. It is used on vapor tight flooring systems e.g. in gyms, industrial halls or hospitals and schools.



For unsealed concrete floors



Prevents osmotic blistering



Applicable to concrete after 7 days



Recoatable after 12 hrs.

Article No.:  
CT 230 002

Consumption:  
Approx. 450 g / m<sup>2</sup>

Packaging:  
2.95 kg combipackage  
(CT 230 002)

10.13 kg combipackage  
(CT 230 010)

25.32 kg combipackage  
(CT 230 025)

**KÖSTER**  
UC Pigment Paste

310 ml / 450 g cartridge  
(CT 451 450)

Pigment paste for coloring KÖSTER UC floor coatings. Provides a very high coverage, even in low amounts. Other colors available on request.

**Consumption:** One cartridge per KÖSTER UC kit



**KÖSTER**  
Filler Fine

20 kg bag (CT 710 020)

KÖSTER Filler Fine is a special, solvent free, mineral filler, which can be added into water-based and solvent free reaction resin systems during the application. It improves the floor coating's resistance against mechanical stresses, particularly with high layer thicknesses.

**Consumption:** Depending on application; bulk density: 1.31 g/m<sup>3</sup>



CT

**KÖSTER**  
KB-Pox Thickening Agent

1 kg bucket (CT 764 001)

8 kg bag (CT 764 008)

KÖSTER Thickening Agent increases the viscosity of KÖSTER epoxy resins and stabilizes them on sloped and vertical surfaces.

**Consumption:** 1% to 6%, depending on the application



Flat Squeegee,  
hardness: medium

piece (CT 922 001)

One-piece Flat Squeegee, red, 60 cm, made entirely of plastic, handle holder with thread, conical rubber, rubber hardness: medium



Flat Squeegee,  
hardness: soft

piece (CT 921 001)

One-piece Flat Squeegee, blue, 60 cm, made entirely of plastic, handle holder with thread, conical rubber, rubber hardness: soft



**KÖSTER**  
Gauging rake

piece (CT 915 001)

For the even installation of e.g. KÖSTER SL Products in the desired layer thickness of 5 - 30 mm. Continuously adjustable, changeable steel sheet and gliding vats made of hardened steel. Width: 80 cm.



**KÖSTER** Short nap roller for applying thin coatings and sealers.  
Resin Roller 100 mm

piece (cover only)  
(CT 913 001)

piece (CT 913 002)



**KÖSTER** Short nap roller for applying thin coatings and sealers.  
Resin Roller 150 mm

piece (CT 917 001)

piece (cover only)  
(CT 917 002)



**KÖSTER** Short nap roller for applying thin coatings and sealers.  
Resin Roller 250 mm

piece  
(CT 916 001)

piece (cover only)  
(CT 916 002)



## Good to know: Substrate preparation



Concrete substrates to receive KÖSTER VAP I 2000 systems must be clean, absorbent, free of dust, oil and grease. Surfaces must be free of adhesives, coatings, curing compounds, concrete sealers, efflorescence, and other materials or contaminants that may act as a bond breaker. The surface must be roughened by sand or ideally by shot blasting to an ICRI Concrete Surface Profile (CSP) 3 to 4. Grinding is permitted only in areas inaccessible to shot blasting or for edging purposes. Upon completion of the shot blasting and grinding, the concrete slab must be vacuumed free of all dust, dirt and debris prior to the installation of KÖSTER VAP I 2000 systems. Do not use sweeping compounds as they may contain oil.



**KÖSTER**  
Screed Anchor  
6 mm x 70 mm

1000 pieces

(CT 910 000)

100 pieces

(CT 910 100)

Screed anchor (6 mm x 70 mm) for force transmitting filling of cracks in screed substrate.



**KÖSTER**  
Squeegee

Complete set  
(CT 918 001 to CT 918 003)

Blade only  
(CT 919 001 to CT 919 003)

For the application of resin based primers. Complete set. Replacement blades available.

Complete set with 2 mm, 5 mm or 8 mm teeth and replacement blades only (2 mm; 5 mm and 8 mm)



CT

**KÖSTER**  
Spike Shoes

piece  
(CT 923 001)

Spike Shoes, size 44-48 with 20 mm pointed steel nails



**KÖSTER**  
Spiked Roller

piece  
(CT 914 001)

For de-airing floor coatings. Width: 50 cm.



**KÖSTER**  
Short scraper for  
toothed blades

piece  
(CT 931 001)

Aluminium, 28 cm  
To accomodate a 28 cm toothed blade  
(delivery without blade)



**KÖSTER**  
Scraper holder

piece  
(CT 927 001)

Scraper holder with aluminium handle holder for toothed blades, 56 cm wide, rust free

To accomodate two 28 cm toothed blades  
(Delivery without blades)



**KÖSTER**  
Spiked Roller

piece  
(CT 929 001)

Spiked roller, 50 cm wide

Nickel coated metal spikes, spike length 30 mm, spike width  $\square$  0.4 mm

(Delivery without holder)



**KÖSTER**  
Paint roller handle  
for spiked roller

piece  
(CT 930 001)

Paint roller handle for spiked roller, accepts 50 cm wide spiked roller / de-airing rollers

Overhanging arm length: 7 cm

(Delivery without spiked roller)



**Good to know:**

**Dew point for coatings**



Coatings made out of reaction resins should not be applied below the dew point or at temperatures below + 5 °C. In order to avoid defects due to the formation of condensation, a thermometer (to measure the air temperature), a hygrometer (to measure the relative humidity) and a contact thermometer (to measure the surface temperature of the substrate to be coated) should be available on site. These measuring devices should be robust and accurate. They can be obtained through optician and laboratory supply stores. The dew point is found by first measuring the temperature of the substrate with an IR thermometer. Next, air temperature and relative humidity are measured. The dew point temperature is then found in the dew point table at the intersection of the measured air temperature and measured relative humidity. This table is available for download at any coating product page online at [www.koester.eu](http://www.koester.eu). If this temperature is at least 3 °C above the dew point temperature taken from the table and if the air and object temperature are above + 5 °C, then the work can be carried out safely. If the temperature of the substrate (measured with the contact thermometer) lies close to the dew point or below it, then no coating works should be carried out because the danger of condensation forming is high. This also applies during the coating curing time.



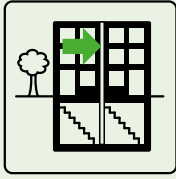
J

Joint sealing  
Joint sealants, joint tapes





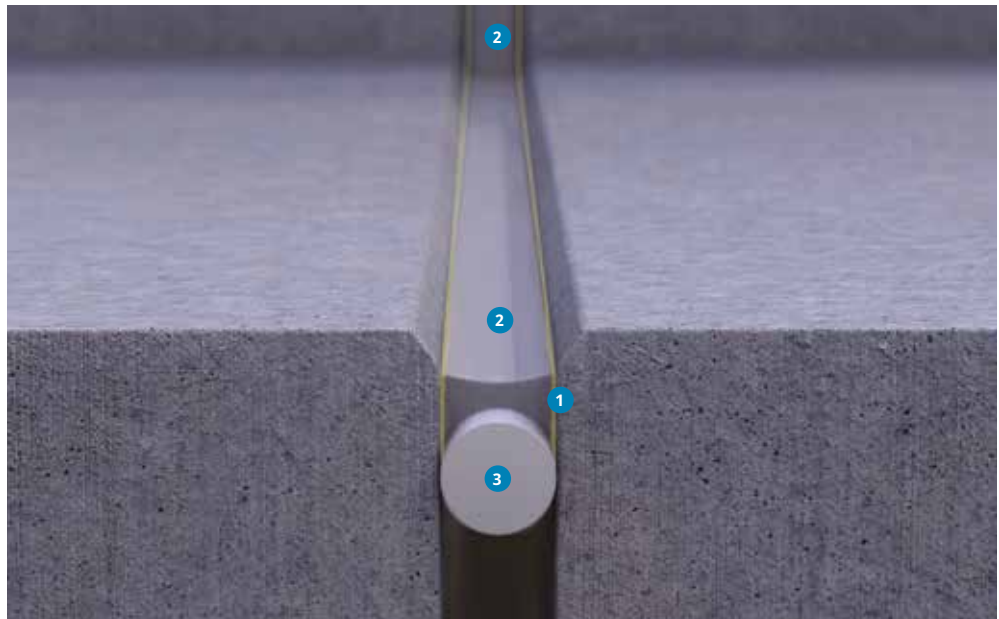
## Joint sealing



Joints in construction members are necessary to accommodate movements between them. Sealing these joints safely, means to seal them permanently elastic, form stable and UV-resistant. This allows for future movements of the construction members without causing damages.

## Joint sealing on mineral and metal surfaces

- 1 **Primer**  
KÖSTER FS Primer 2C
- 2 **Joint sealing**  
KÖSTER Joint Sealant FS-H black  
KÖSTER Joint Sealant FS-H grey  
KÖSTER Joint Sealant FS-V black  
KÖSTER Joint Sealant FS-V grey
- 3 **Backing rod**



Construction joints are exposed to movements caused by thermal or other stresses. To waterproof construction joints permanently, an elastic material is required. KÖSTER Joint Sealant FS is a proven polysulphide based elastic joint sealant; resistant to mechanical stresses, UV radiation and aging. KÖSTER Joint Sealant FS is also resistant to aggressive chemicals.

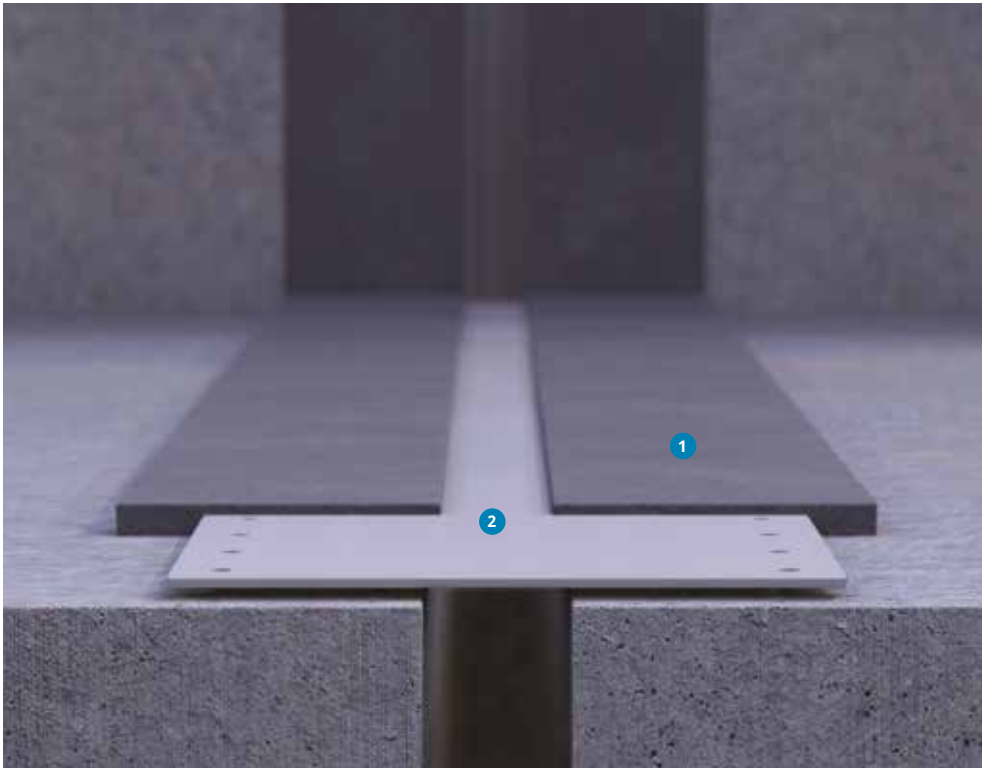
Important for permanently waterproofing construction joints is not only to apply a durable material, but it also needs to permanently adhere to the joint flanks. The substrate must be stable, clean and dry, as well as free of bond inhibiting substances. The substrate is primed with the fast curing, transparent, solvent free,

two component bonding agent KÖSTER FS Primer 2C.

The optimal absorption of the tension is guaranteed when the KÖSTER Joint Sealant FS is installed only connected to two opposing joint flanks. It allows the material to expand across the construction joint. To separate the joint sealing from the bottom, a customary PE-round cord is installed into the joint before applying the material. To avoid damage caused by tension stresses, the joint sealant is applied in thicknesses depending on the measurements of the joint. The proportion of the applied sealant should be 1 : 1 to 1 : 2 (height to width of the joint).

Always adhere to the specifications in the respective Technical Guidelines.

## Joint sealing on dilatation joints and other moving joints



### 1 Primer

KÖSTER KB-Pox Adhesive

### 2 Joint sealing

KÖSTER Joint Tape 20

KÖSTER Joint Tape 30

J

Movement joints must be waterproofed durably, elastically, form stable, and UV resistant. A joint waterproofing must allow for movement in the construction without causing damage to the construction itself. Movement joints up to a width of 35 mm can be waterproofed with KÖSTER Joint Sealant FS. For wider joints, such as expansion and dilation joints, KÖSTER Joint Tapes are used.

The KÖSTER Joint Tape is a thermoplastic tape for waterproofing expansion joints. It comes in widths of 20 cm (for 12 cm wide joints) and 30 cm (for up to 20 cm wide joints). The KÖSTER Joint Tape 20 and KÖSTER Joint Tape 30 are UV stable; highly elastic and can resist extreme joint movements.

The KÖSTER Joint Tape System consists of the KÖSTER Joint Tapes and KÖSTER KB-Pox

Adhesive, a 2 component, epoxy based high performance adhesive.

Firstly, the KÖSTER KB-Pox Adhesive is applied onto the stable and prepared substrate. As a general rule, the substrate must be cleaned or removed down to a solid and stable base material, then leveled and primed if necessary. The substrate must be clean, solid, dry, and free from adhesion inhibiting materials, such as waxes, oils, and old coatings.

Then, the KÖSTER Joint Tape is bonded to both flanks of the joint with the first layer of adhesive, making sure that the tape has a good contact to the adhesive. Afterwards, the KÖSTER Joint Tape is embedded into a second coat of KÖSTER KB-Pox Adhesive.

Always adhere to the specifications in the respective Technical Guidelines

## Joint Sealing in Tunnel Constructions

- 1 Pump  
KÖSTER Acrylic Gel Pump
- 2 Special rubber sealing system
- 3 Injection needle
- 4 Joint sealant  
KÖSTER Injection Gel S4
- 5 Joint protection  
KÖSTER PU-Flex 25



The complex construction of tunnels entails great challenges for the waterproofing system. Even with the highest application standards, there could be special situations or extraordinary occurrences that could cause leaks inside the tunnels. These leaks are mostly located along the joints of the tubing elements, and if not treated in time, could cause severe damages to the structural integrity of the tunnel.

The KÖSTER Injection Gel S4 with the B+ component is a specially designed acrylic gel for the injection of joints, providing an outstanding elasticity, a higher adhesion to the flanks, and a reduced drying tendency when in contact with moving air currents.

The adjustable reaction time acrylic gel is injected inside the joint using injection needles, inserted through a special rubber sealing system placed in the joint. To avoid material losses on the back and prevent the material from running down the drainage system, a backing rod is inserted to create a defined injection area.

When the injection is completed, the special rubber sealing system can be removed and the gel protected with the highly elastic, low modulus polyurethane sealant sealant KÖSTER PU-Flex 25.

Always adhere to the specifications in the respective Technical Guidelines.



## Injection of expansion joints



### 1 Injection packer

KÖSTER Packer  
13 mm x 130 mm CH  
KÖSTER Superpacker  
10 mm x 115 mm CH  
KÖSTER Superpacker  
10 mm x 85 mm CH  
KÖSTER Superpacker  
13 mm x 130 mm CH

### 2 Joint waterproofing

KÖSTER Injection Gel S4

J

The injection of joints represents a fairly quick method and minimally invasive way to repair failing waterproofing systems.

Hidden expansion joints, for example in an underground parking garage above a support beam, usually require a small number of injection packers. The placement of these packers is determined so that existing waterstops are preferably not perforated. This is particularly important for existing internal or external sealing bands. In the case of overhead expansion joints (dilation joints), boreholes should be ideally drilled towards the top third of the joint. In cases of floor expansion joints, boreholes should be ideally drilled towards the lower third of the joint.

KÖSTER Superpackers are inserted into the boreholes. At overhead joints, a polymer,

cementitious or mechanical barrier may be necessary to seal the joint before injection, in order to avoid losses of material.

The KÖSTER Injection Gel S4 with the KÖSTER B+ component is a specially designed acrylic gel for the injection of joints, providing a higher flank adhesion, enhanced elasticity and a reduced drying tendency when in contact with air currents.

By injecting the joint with the elastic acrylic gel KÖSTER Injection Gel S4/B+, it is not necessary to excavate underground parking garages or other underground building components. Moreover, since a low number of packers is sufficient in most cases, the drilling effort is reduced and time and costs are saved.

Always adhere to the specifications in the respective Technical Guidelines

## Waterproofing of cable and pipe penetrations

- 1 Penetration
- 2 Backing
- 3 Waterproofing  
KÖSTER KB-Flex 200
- 4 Protection layer  
KÖSTER KB-Fix 5



Cable and pipe penetrations such as electrical, water and data cables, must be permanently and securely waterproofed against penetrating water. Typically, rigid mortars or foams are used, which prevent the installation of other cables.

Using KÖSTER KB-Flex 200, a permanently plastic material, is a robust and easy way to waterproof against penetrating water, while allowing the installation of further cables at a later stage. The material accommodates cable movements, does not tear, and is permanently resistant against common substances found in soil and groundwater.

Before applying the material, the substrate must be clean and free of loose particles. The substrate can be dry, moist or wet. In cases of pressurized water, a backing is installed in the penetration at a depth

corresponding to the installation depth (1.5:1 / Length : Thickness) using a common PU foam. During the installation of the sealing compound, it is important to make sure that it is installed free from voids. Finally, the sealing compound is recessed approx. 1 cm from the wall surface, and smoothed with a metal spatula. As a protection layer and to hold the pipe / cable centered, the exposed material is covered with KÖSTER KB-Fix 5.

KÖSTER KB-Flex 200 has good adhesion to all commonly used building materials such as concrete, masonry, mortar, plaster, brick, and all other mineral construction materials, as well as ceramic, PVC, polyethylene and polypropylene. A primer is not necessary.

Always adhere to the specifications in the respective Technical Guidelines.

**KÖSTER**  
FS Primer 2C

200 g combi package  
(J 139 200)

KÖSTER FS Primer 2C is a fast curing, transparent, solvent free two component bonding agent. It is used as a primer for the subsequent application of KÖSTER Joint Sealant FS-H and FS-V.

**Consumption:** Approx. 10 - 20 g / m



**KÖSTER**  
KB-Pox Adhesive

5 kg combipackage  
(J 120 005)

High performance adhesive specially designed for fastening KÖSTER Joint Tapes to mineral, wooden and metal substrates. KÖSTER KB-Pox Adhesive develops a high adhesive strength to concrete, mortar, metal, wood and many other building materials. It develops high early strength. Vertical and overhead application is possible.

**Consumption:** For KÖSTER Joint Tape 20: 1 kg / m, for KÖSTER Joint Tape 30: 1.5 kg / m



**KÖSTER**  
PU Primer 120

250 ml can (J 138 250))

One component PU primer for non-porous surfaces. Primer for KÖSTER MS-Flexfolie and KÖSTER PU-Flex 25.

**Consumption:** 30 - 50 ml / m<sup>2</sup>



**KÖSTER**  
Joint Sealant  
FS-H black

4 kg combipackage  
(J 232 004)

Self leveling joint sealant with excellent resistance against mechanical stresses and a high resistance against water, sea water, salt solutions, petroleum and mineral oils. It is rot and root resistant. The rubbery-elastic material based on polysulfides is 2-component, elastic and pourable.

Fields of application include permanently elastic waterproofing of horizontal joints in below grade construction such as foundations, sewage treatment plants, garages, tunnels, etc.

**Consumption:** Approx. 1.6 kg/l void



**KÖSTER**  
Joint Sealant  
FS-H grey

4 kg combipackage  
(J 234 004)

Self Levelling joint sealant with excellent resistance against mechanical stresses and a high resistance against water, sea water, salt solutions, petroleum and mineral oils. It is rot and root resistant. The rubbery-elastic material based on polysulfides is 2-component, elastic, and pourable.

Fields of application include permanently elastic waterproofing of horizontal joints in below grade construction such as foundations, sewage treatment plants, garages, tunnels, etc.

**Consumption:** Approx. 1.6 kg / l void



J



**KÖSTER**  
Joint Sealant  
FS-V black

4 kg combipackage

(J 231 004)

Formstable joint sealant with excellent resistance against mechanical stresses and a high resistance against water, sea water, salt solutions, petroleum and mineral oils. It is rot and root resistant. The rubber-elastic material based on polysulfides is 2-component, elastic and stable.

Fields of application include permanently elastic waterproofing of vertical joints in below grade construction such as foundations, sewage treatment plants, garages, tunnels, etc.

**Consumption:** Approx. 1.6 kg/l void



**KÖSTER**  
Joint Sealant  
FS-V grey

4 kg combipackage

(J 233 004)

Formstable joint sealant with excellent resistance against mechanical stresses and a high resistance against water, sea water, salt solutions, petroleum, and mineral oils. It is rot and root resistant. The rubber-elastic material based on polysulfides is 2-component, elastic and stable.

Fields of application include permanently elastic waterproofing of vertical joints in below grade construction such as foundations, sewage treatment plants, garages, tunnels, etc.

**Consumption:** Approx. 1.6 kg/l void



**KÖSTER**  
PU-Flex 25

900 g in 600 ml foilbags

(J 235 600)

Highly elastic, low modulus polyurethane sealant, with good UV resistance and excellent adhesion to typical construction materials. KÖSTER PU-Flex 25 is one component and cures with moisture to form a flexible sealant which can be overpainted after curing is finished. The sealant is non sagging, highly thixotropic, easy smoothing and has good workability.

**Consumption:** Approx. 1.50 kg/l void



**KÖSTER**  
KB-Flex 200

Sealing compound for pipe and cable penetrations, even in the case of pressurized water. KÖSTER KB-Flex 200 is a 1-component, permanently plastic material and can therefore be directly applied from the cartridge – even in the case of flowing water.



Cable penetration



Pipe penetration



Swimming pool installations



Against flowing water

**Article No.:**  
J 250 310

**Consumption:**  
1.6 kg / l void

**Packaging:**  
C310 ml / 500 g cartridge  
(J 250 310)  
530 ml foilbags  
(J 250 531)

**KÖSTER**  
Quellband

6 x 5 per box  
(J 270 005)

KÖSTER Quellband is a sodium-bentonite based water swellable joint tape with an alkalinity activated surface coating which stops premature swelling of the tape on the building site.

**Consumption:** 1 m / m



**KÖSTER**  
Joint Tape 20

20 m roll  
(J 820 020)

Thermoplastic tape for sealing expansion and dilatation joints (up to 12 cm) and broad, irregular cracks. KÖSTER Joint Tape 20 is UV resistant, highly elastic and can withstand extreme movements in the joint.

The joint tape system consists of KÖSTER Joint Tape and KÖSTER KB-Pox® Adhesive, a high performance adhesive for fastening the joint tape to mineral substrates. 1 mm x 200 mm.

**Consumption:** Approx. 1 kg of KB-Pox Adhesive per m Joint Tape 20



J

**KÖSTER**  
Joint Tape 30

20 m roll  
(J 830 020)

Thermoplastic tape for sealing expansion and dilatation joints (up to 20 cm) and broad, irregular cracks. KÖSTER Joint Tape 30 is UV resistant, highly elastic and can withstand extreme movements in the joint.

The joint tape system consists of KÖSTER Joint Tape and KÖSTER KB-Pox® Adhesive, a high performance adhesive for fastening the joint tape to mineral substrates. 1 mm x 300 mm.

**Consumption:** Approx. 1.5 kg of KB-Pox Adhesive per m Joint Tape 30



**KÖSTER**  
Caulking Gun

piece  
(J 989 001)

For standard 310 ml cartridges, e. g. KÖSTER KB Flex 200 and KÖSTER Crisin Cream.



**KÖSTER**  
Connecting Hose  
and Nozzle for  
Caulking Gun

set  
(J 982 001)

Accessories for the application of KÖSTER KB-Flex 200 Sealing compound with a flexible hose and 45° bend.



**KÖSTER**  
Special Caulking Gun

piece  
(J 981 001)

Cartridge gun for the application of KÖSTER KB-Flex 200 (530 ml / 850 g cartridge).



**KÖSTER**  
Special Caulking Gun  
without extensions

piece  
(J 983 001)

Caulking gun for tubular bags (sausages) and cartridges, for example KÖSTER Crisin Cream 600 ml and KÖSTER KB-Flex 200 in 530 ml cartridges.



- 1 kg (IN 294 001 A2)
- 10 kg (IN 294 010 B)
- 18 kg (IN 294 018 B+)
- 20 kg (IN 294 020 A1)

Component A1: 20 kg;  
Component A2: 1 kg;  
(IN 294 021)

Component B: 0.4 kg  
(IN 294 400 B)

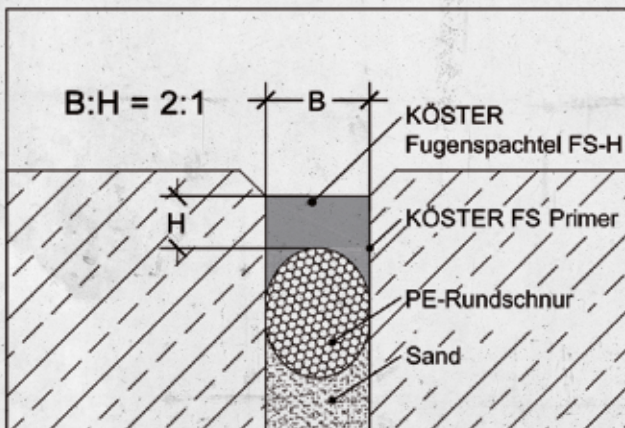
**KÖSTER**  
Injection Gel S4

Reaction time adjustable acrylic gel for curtain injection and dilatation joint waterproofing. Due to the low viscosity it can be injected into very fine pored structures using a multi-stage injection technique fitted to the reaction-time curve of the material. Can be used with the B + component to add higher flank adhesion to concrete surfaces dilatation joint waterproofing. Yields after reaction time a viscoelastic product that is very suitable for moving joints. Can take up water after reaction.

**Consumption:** Depends on the field of application

**Good to know:**

**Joint filling application technique**



In order to reduce mechanical effects on the joint sealing, the edges on the joint flanks are first chamfered at a 45 ° angle as a preparatory measure. The bevel should be at least 10 mm wide. In order to avoid damage to the joint sealant through movements in different directions, contact is only ever made with two joint flanks. For this purpose, a backfill material, e.g. installed a commercially available PE round cord. The joint filler is installed with a width / height ratio of approx. 2: 1 (dimensioning and consumption in the technical data sheet at [www.koester.eu](http://www.koester.eu)). The adjacent components can be masked for clean processing. Absorbent substrates are primed twice, non-absorbent substrates once with KÖSTER FS Primer 2C. The joint is filled approx. 30 minutes after applying KÖSTER FS Primer 2C. The grout is superficially smoothed with a e.g. spatula. The tape should be removed before the joint filler hardens.



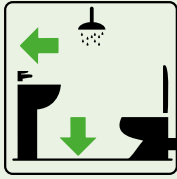


B

Bathroom and wet rooms



## Wet room waterproofing



In these sensitive parts of the building, moisture can lead to severe damage to the entire building. Discoloration and tiles which are falling off the substrate are the first visible signs of such damages. Such rooms are waterproofed completely, in order to protect the substance of the structure. The entire wall and floor areas are seamlessly waterproofed. Seamlessly waterproofed with a system able to bridge possible cracks.

## Wet room waterproofing with liquid synthetics

- 1 **Primer**  
KÖSTER BD 50 Primer
- 2 **Waterproofing corners and wall floor junctions**  
KÖSTER BD Flex Tape K 120  
KÖSTER Superfleece
- 3 **Waterproofing outside corners**  
KÖSTER BD Outside Corner  
KÖSTER Superfleece
- 4 **Waterproofing inside corners**  
KÖSTER BD Inside Corner  
KÖSTER Superfleece
- 5 **Waterproofing wall penetrations**  
KÖSTER BD Wall Sleeve  
KÖSTER Superfleece
- 6 **Waterproofing floor drains**  
KÖSTER BD Floor Sleeve  
KÖSTER Superfleece
- 7 **Waterproofing layer**  
KÖSTER BD 50  
KÖSTER BD 50 Contrast  
KÖSTER BD Wetroom Kit
- 8 **Tile adhesive**  
KÖSTER BD Flexible  
Tile Adhesive



A complete and robust waterproofing is a crucial prerequisite for the long-term usability of damp and wet rooms. Most tiles are inherently waterproof, but many grouting materials are not. For this reason, it is very important to keep the substrate dry and damage-free with the help of a waterproofing layer under the tiles.

Only a few building elements are so constantly exposed to water as kitchens and bathrooms. In these cases, a professional and crack bridging waterproofing material is required. Furthermore, it must be stable enough so that tiles can be applied on top of it.

The KÖSTER BD-System is a complete system for waterproofing kitchens, bathrooms and wet rooms underneath tiles. The dry and stable substrate is primed with KÖSTER BD 50 Primer and then

waterproofed with the ready-to-use, solvent free, highly flexible sealing compound KÖSTER BD 50.

For the reinforcement of details and pipe penetrations in the construction, KÖSTER Superfleece is cut to shape and installed at corners and connections. Prefabricated interior and exterior corners, as well as wall and floor sleeves (KÖSTER BD Inside Corner, KÖSTER BD Outside Corner, KÖSTER BD Wall Sleeve and the KÖSTER BD Floor Sleeve) are also available.

The KÖSTER Superfleece or the KÖSTER BD Flex-Tape K 120 is embedded at wall/wall, wall/floor transitions and at joints. In areas where a reinforcement is embedded, movements won't cause damage to the waterproofing material.

Always adhere to the specifications in the respective Technical Guidelines.

**KÖSTER**  
BD 50 Primer

5 kg jerrycan  
(B 190 005)

Special primer for the KÖSTER BD System on dry or absorbent substrates. Penetrates deeply into the substrate creating an excellent bonding bridge for the subsequent waterproofing.

**Consumption:** Approx. 50 - 150 g / m<sup>2</sup>; depending on the substrate



**KÖSTER**  
BD 50

10 kg bucket  
(B 290 010)

KÖSTER BD 50 is a ready-for-use, solvent-free and easy to apply sealing compound for waterproofing surfaces under tile and coverings in damp and wet rooms. Once applied to the substrate, it cures to a highly flexible, waterproof synthetic foil which is highly elastic and crack bridging. Fields of application include under tiles in showers, bathrooms, kitchens, car washes, etc.

**Consumption:** Up to: 1.2 kg / m<sup>2</sup>



B

**KÖSTER**  
BD Wetroom Kit

(B 291 001)

Ready to use, seamless waterproofing shower set featuring the highly elastic, waterproof material, KÖSTER BD 50, and all its components combined in one package.

**Consumption:** KÖSTER BD 50: Up to: 1.2 kg / m<sup>2</sup>; KÖSTER BD 50 Primer: Approx. 0.1 - 0.25 kg / m<sup>2</sup>; depending on the substrate, KÖSTER Superfleece: 1 m per linear m; KÖSTER Superfleece 350 mm x 350 mm: 1 per detail



**KÖSTER**  
BD 50 Contrast

500 g  
(B 490 500)

Liquid contrast agent for coloring KÖSTER BD 50 before applying the second layer. Visual inspection will be simplified through color differentiation of the second waterproofing layer.

**Consumption:** Approx. 100 g / 10 kg KÖSTER BD 50



**KÖSTER**  
BD Flexible Tile Adhesive

25 kg bag  
(B 540 025)

Single component, mineral flexible adhesive for all mineral building materials in construction. In combination with the KÖSTER BD System suitable for waterproofing wet rooms.

**Consumption:** Approx. 1.7 kg / m<sup>2</sup>; per mm layer thickness





**KÖSTER**  
BD Flex Tape K 120

10 m roll  
(B 931 010)

50 m roll  
(B 931 050)

Joint sealing tape for the secure bridging of joints, wall / floor junctions and in areas prone to cracking. Specially designed for the KÖSTER BD System. An elastomer strip with protruding mesh for the secure integration into the area waterproofing.

The KÖSTER BD System is a DIN EN 14891 certified system for the waterproofing of wetrooms e. g. under ceramic tile. 0.6 mm x 120 mm.



**KÖSTER**  
BD Floor Sleeve

piece  
(B 935 001)

Ready to use, elastic moulded part for the waterproofing of floor drains in the KÖSTER BD System. Made of NBR-rubber with a protruding mesh for the secure integration into the area waterproofing.



**KÖSTER**  
BD Inside Corner

piece  
(B 932 001)

Ready to use, elastic moulded part for the waterproofing of inside corners in the KÖSTER BD System. Made of NBR-rubber with protruding mesh for the secure integration into the area waterproofing.



**KÖSTER**  
BD Outside Corner

piece  
(B 933 001)

Ready to use, elastic moulded part for the waterproofing of outside corners in the KÖSTER BD System. Made of NBR-rubber with an protruding mesh for the secure integration into the area waterproofing.



**KÖSTER**  
BD Wall Sleeve

piece  
(B 934 001)

Ready to use, elastic moulded part for the waterproofing of pipe penetrations in the KÖSTER BD System. Made of NBR-rubber with an protruding mesh for the secure integration into the area waterproofing.



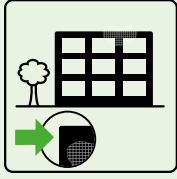


P

Façade protection  
and paints



## Façade protection



Climatic influences and the resulting penetration of moisture into the substrate often lead to damages to the façade. In order to protect façades made of mineral building materials, impregnations are used to make the surface water repellent. These hydrophobic agents penetrate deeply into the substrate, and dry without leaving residues, so that the visual appearance of the façade is not affected by the impregnation.

## Protecting façades made of mineral building materials

- 1 Surface protection  
KÖSTER Façade Cream  
KÖSTER Siloxan



KÖSTER façade protection systems prevent masonry and concrete from liquid water ingress (rain or splash water, condensate), but at the same time, water vapor is still able to escape from the façade. That way, long term moisture damage can be avoided.

KÖSTER Façade Cream is a solvent-free pasty hydrophobization material. It is

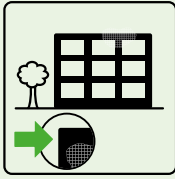
applied as a film using a roller or brush and penetrates deep into mineral substrates.

KÖSTER Siloxan in contrast, is a hydrophobization liquid and can therefore, be sprayed onto the façade or alternatively brush applied.

Always adhere to the specifications in the respective Technical Guidelines.



## Protecting concrete surfaces on bridges and aqueous environments



Exterior concrete structures such as bridges, highways, supporting walls, stadium columns, etc., are exposed to environmental conditions such as driving rain, contaminants and salts, that when dissolved in water, may enter the structure and cause deterioration of the concrete substance. A hydrophobization of the structure will reduce the water intake, protecting the structure from corrosion and prolonging its lifespan.

## Protecting concrete surfaces on bridges and aqueous environments



1 Surface protection  
KÖSTER Iperlan

P

The hydrophobization of structures is an important factor in protecting them from damage; thereby, increasing their lifespan. Corrosive contaminants and salts enter the structure and penetrate into the concrete when dissolved in water. By limiting the water uptake of structures, they can be protected from corrosive damage.

KÖSTER Iperlan is a highly effective hydrophobizing impregnation agent for concrete in civil engineering constructions, such as bridge heads, supporting walls, beams, as well as all exposed construction members, among others. It is used to reduce the penetration of substances harmful to concrete, such as chlorides

or other aqueous media. Due to a combination of its composition and active ingredients, the material penetrates deep into the concrete structure and therefore, helps protect the reinforcement steel. KÖSTER Iperlan is a class II impregnation agent with an average penetration depth of approximately 2 cm.

The substrate must be dry, free of laitance, oils and fats. New concrete must cure for at least 28 days before application. The material can be applied with the KÖSTER Peristaltic Pump, other suitable spraying equipment, or with a brush.

Always adhere to the specifications in the respective Technical Guidelines.

**KÖSTER**  
Primer P  
5 kg jerrycan  
(P 162 005)

Deeply penetrating acrylic primer to reduce absorption and to solidify concrete surfaces.  
**Consumption:** 100 - 200 g / m<sup>2</sup>



**KÖSTER**  
Acrylic Paint  
15 l bucket  
(P 262 015)

High quality, matt, water-thinnable façade paint for a decorative final coating of mineral surfaces. The material is highly resistant, has good coverage, and is suited as a structure-preserving coating. White, can be colored.  
**Consumption:** approx. 0.2 ltr / m<sup>2</sup> per layer



**KÖSTER**  
Façade Cream  
5 l bucket  
(P 200 005)  
15 l bucket  
(P 200 015)

Protection of mineral building structures and façades from water and driving rain. Solvent free, colorless after curing, water repellent, diffusion open hydrophobization cream for brick, clinker, natural stone and mineral plasters.  
**Consumption:** Approx. 0.1 - 0.25 l / m<sup>2</sup> depending on the surface.



**KÖSTER**  
Iperlan  
25 l hobbock  
(P 241 025)

Highly effective hydrophobizing impregnation agent for concrete in civil engineering construction.  
**Consumption:** Approx. 500 to 600 ml/m<sup>2</sup> depending on porosity of the substrate.



**KÖSTER**  
MF 1  
12 kg bucket  
(P 280 012)

White mineral paint suitable for inside and outside areas. KÖSTER MF 1 is delivered in powder form, effective against algae, mold and fungi and free of fungicidal toxins.  
**Consumption:** Approx. 1.6 kg / m<sup>2</sup> in 2 coats (per coat approx. 0.8 kg / m<sup>2</sup>)



**KÖSTER**  
Silicone Paint White  
10 l bucket  
(P 260 010)

Ideal for use on restoration plasters. Diffusion open, matt silicone resin paint with a special water repelling effect.  
**Consumption:** Approx. 0.2 l/m<sup>2</sup> per coat



**KÖSTER**  
Siloxan  
10 l jerrycan  
(P 240 010)

Façade hydrophobization for the protection of mineral building materials from water and driving rain. Sprayable, colorless after curing and open to water vapor diffusion.  
**Consumption:** 0.2 - 1.0 l / m<sup>2</sup>, depends on absorbency of the surface.





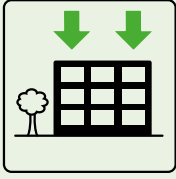
R

## Roofing

Roofing membranes, roof waterproofing



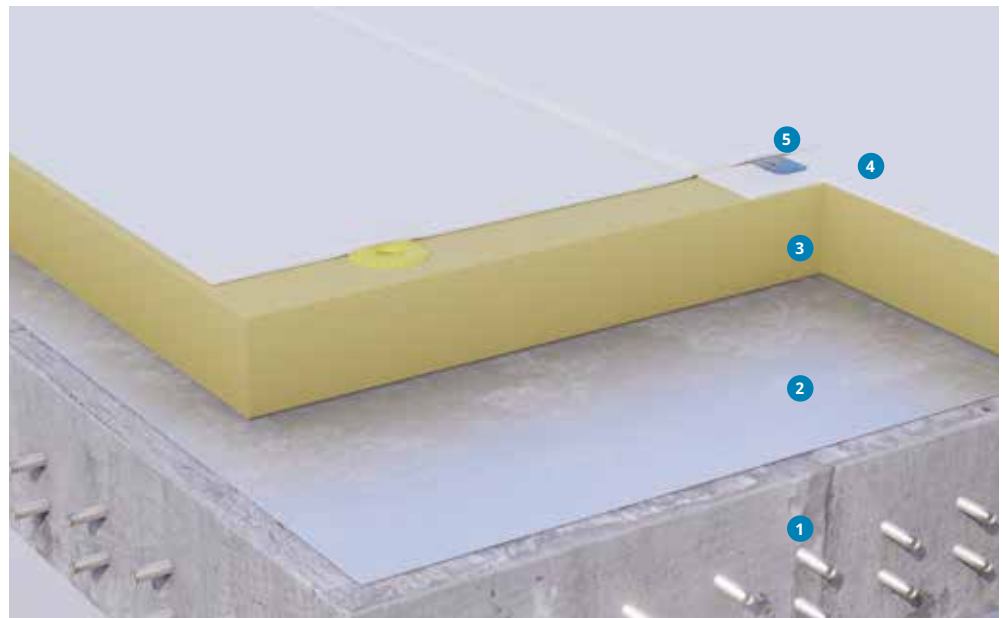
## Roof waterproofing with membranes



Roofs are the most stressed part of a building. The roofing membrane is exposed to a diversity of agents that accelerate the degradation of the material. Sunlight, UV radiation, wind, pollution, snow and frost, temperature fluctuations, hail and lightning storms are only a few of the big list of influences that the membrane is exposed on a flat roof. Also the huge diversity of equipments (AC, chimneys, etc) that are normally installed on flat roofs, can easily promote the premature aging of the materials and reduce its lifespan. Therefore, the roofing membranes need to be highly resistant and have a lasting life protecting the roof without interfering with the environment.

## Roof waterproofing with mechanically fastened membranes

- 1 Substructure
- 2 Vapor Barrier  
Vapor Barrier FR
- 3 Insulation
- 4 KÖSTER TPO Membrane  
KÖSTER ECB 2.0  
KÖSTER TPO 1.2  
KÖSTER TPO 1.5  
KÖSTER TPO 1.8  
KÖSTER TPO 2.0  
KÖSTER TPO Pro 1.5  
KÖSTER TPO Pro 1.8
- 5 Mechanical fasteners

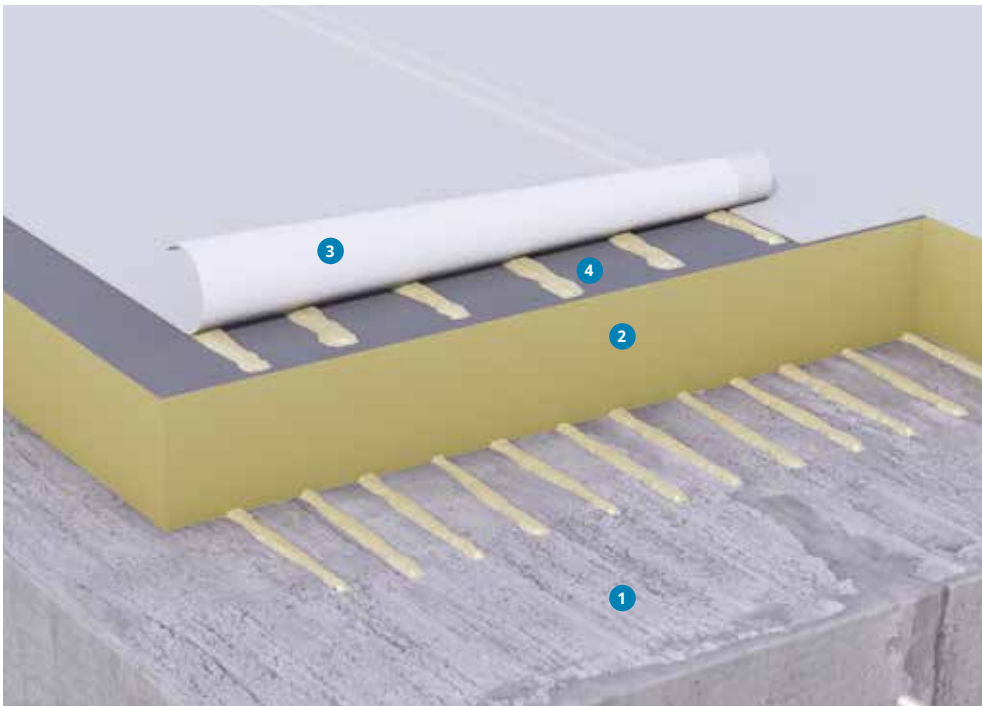


The most common method of installing TPO membranes is through mechanical fastening. The membrane is mechanically fastened to the roof structure, which can consist of either wooden sheathing, trapezoidal sheets, or a concrete slab. The membrane is generally fastened through the thermal insulation, which requires special fasteners. Overlapping the membranes prevents the penetration of water into the installation. Due to its great compatibility with various materials such as bitumen, the KÖSTER TPO Membrane is suitable for use in the renovation of roof waterproofing systems as well. For instance,

the KÖSTER TPO Membrane can be directly fastened to the substructure without having to remove the old waterproofing system, as long as the substrate is intact and structural aspects do not indicate otherwise. Mechanical fastening allows for a quick installation and provides a high resistance to wind loads without placing an additional load upon the waterproofing system. Thus, the roof structure is comparatively light in weight. Furthermore, mechanical fastening guarantees that the membrane will not slip, even on pitched roofs. Mechanical fastening even makes a green roof on a pitched roof possible.



## Roof waterproofing with bonded membranes



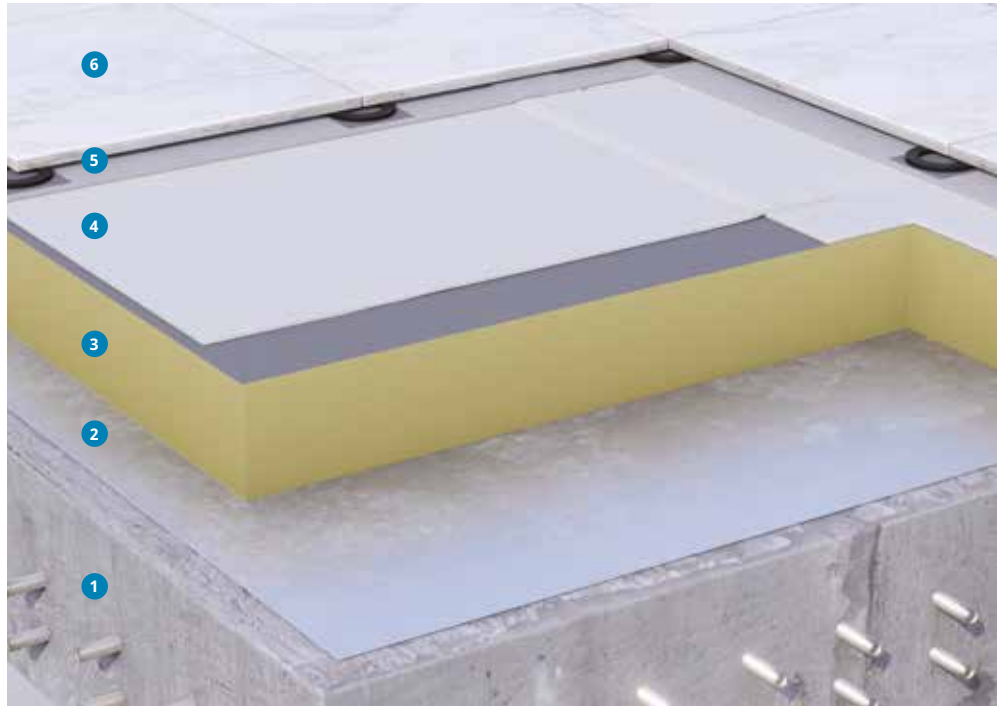
- 1 Substructure
- 2 Insulation
- 3 **KÖSTER TPO Membrane**  
KÖSTER TPO 2.0 F
- 4 **Adhesive**  
KÖSTER 2C PUR  
Membrane Adhesive  
KÖSTER PUR  
Membrane Adhesive

Full surface adhesion to the substrate offers a time-saving installation. The KÖSTER TPO Membrane features a special fleece coating on one side, which increases the bonding of the KÖSTER PUR Membrane Adhesive or the KÖSTER 2K PUR Membrane Adhesive. This results in a high adhesive strength and creates a perfect bond to the substrate. It is important that the substrate is suitable for a good adhesive bond. If necessary, an adhesive bridge can be applied. In addition, a wind load calculation must be carried out prior to the adhesion of the membrane in order

to provide information about the amount of adhesive required and the alignment of the welding seams. The KÖSTER PUR Membrane Adhesive is applied in strips to the substrate, before unrolling the fleece-back coated KÖSTER TPO Membrane. The membrane is then firmly pressed onto the substrate using a cylinder in the same width of the membrane. This enables the adhesive to be spread evenly and help achieve uniformity of the bond. When distributing the adhesive care must be taken to ensure that no adhesive on the welding edges is spread.

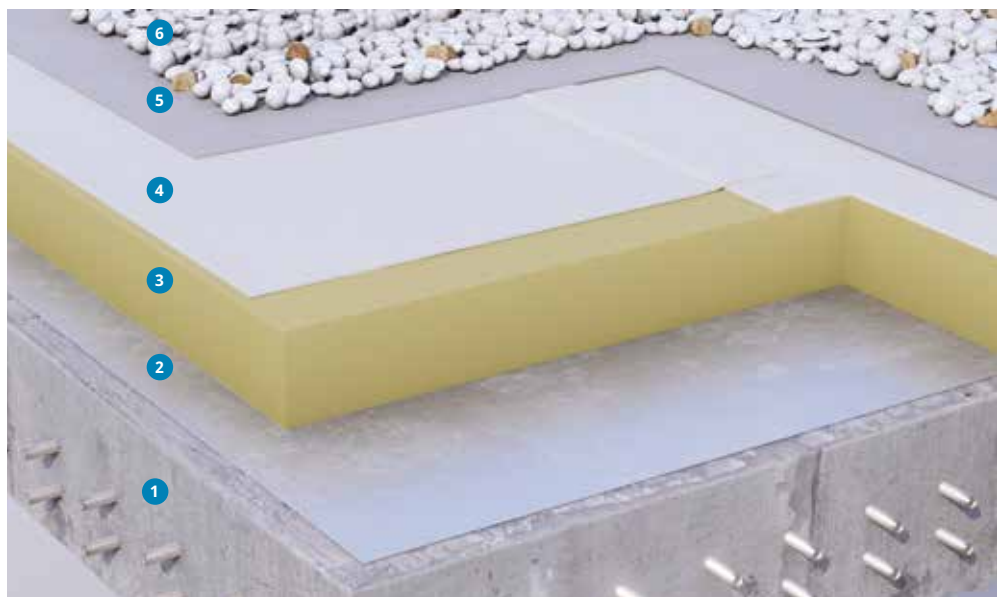
## Roof waterproofing with loose-laid membranes

- 1 Substructure
- 2 Vapor Barrier  
Vapor Barrier FR
- 3 Insulation
- 4 KÖSTER TPO Membrane  
KÖSTER ECB 2.0  
KÖSTER TPO 1.5  
KÖSTER TPO 1.8  
KÖSTER TPO 2.0  
KÖSTER TPO Pro 1.5  
KÖSTER TPO Pro 1.8
- 5 Protection Layer
- 6 Ballast System

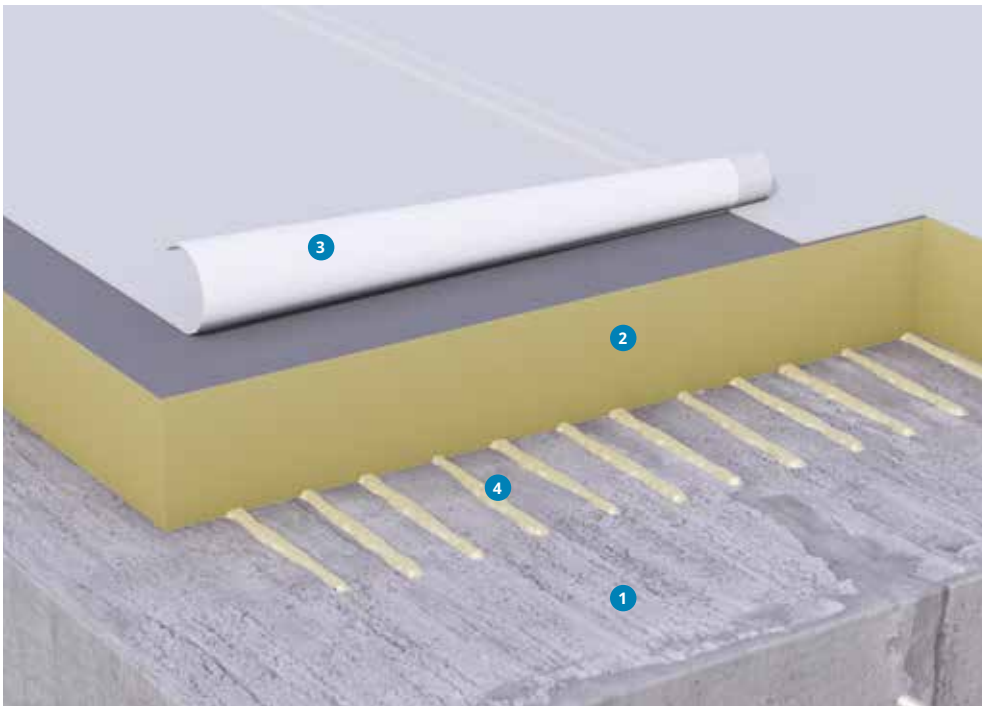


A quick and secure way to install KÖSTER TPO Membranes is through loose laying with ballast over the membrane. Ballast can consist of either gravel, paving slabs, or even green roofs. Ballast helps protect the roofing membrane against wind loads and can accommodate a wide range of

architectural styles. The main advantage of this installation method is that the roofing membrane does not need to be mechanically fastened to the substrate. Due to the weight of the ballast, higher loads must be taken into consideration in the roof load calculation.



## Roof waterproofing with self-adhered membranes



- 1 Substructure
- 2 Insulation
- 3 **KÖSTER TPO Membrane**  
KÖSTER TPO 1.5 SK (FR)  
KÖSTER TPO 2.0 SK (FR)
- 4 **Adhesive**  
KÖSTER PUR  
Membrane Adhesive  
KÖSTER 2C PUR  
Membrane Adhesive

The fastest way to install a roofing membrane is by using a self-adhered system with the KÖSTER TPO SK (FR) membranes. The adhesive layer guarantees immediate, long-term adhesion and provides maximum protection against wind suction forces. The overlaps are sealed in the same way as the other KÖSTER TPO membranes, using a hot air gun or automatic machine.

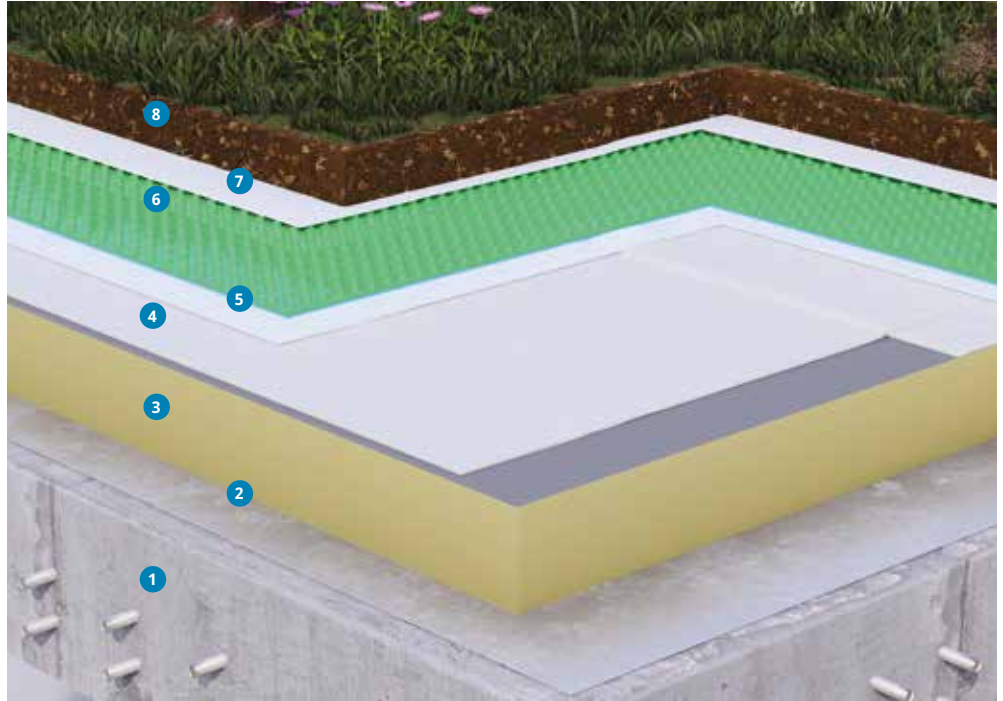
This special membrane can be installed

directly over a wide range of substrates including different types of insulation materials (suitable directly over EPS insulation) and even concrete substrates and old membranes (please adhere to the technical documentation for details), using the special primer KÖSTER TPO SK Primer.

The KÖSTER TPO SK (FR) Roofing Membranes are classified as Broof (t1) and meet the requirements for "hard roofs" in accordance with DIN 4102-7.

## Roof waterproofing on green roofs

- 1 Substructure
- 2 Vapor Barrier  
Vapor Barrier FR
- 3 Insulation
- 4 KÖSTER TPO Membrane  
KÖSTER TPO 1.8  
KÖSTER TPO 2.0
- 5 Protection Layer
- 6 Drainage Sheet  
KÖSTER SD Protection and  
Drainage Sheet 3-400
- 7 Protection Layer
- 8 Ground / Greenery /  
Landscaping



The benefits of a green roof are diversified and can go from the simple, but effective protection of the membrane itself, to the insulation advantages to the building and structure.

Green roofs can represent real opportunities for significant social, economic, and environmental benefits, particularly in cities.

The real benefits can go from the simple efficiency of retaining a part of the rain water, the moderation of urban heat effect, the improvement of air quality, to act as a fire retarding agent, noise reduction by absorbing decibels, and many others. These are only a few of examples of the reasons to choose Green Roofs.



## Roof waterproofing with cold self-adhesive sealing membranes



- 1 **Primer**  
KÖSTER KBE Liquid Film
- 2 **Waterproofing layer**  
KÖSTER KSK ALU Strong

Smaller roofs on non residential buildings can quickly and easily be waterproofed with the cold self-adhesive sealing membrane KÖSTER KSK ALU Strong. The clean and dry substrate is primed with KÖSTER KBE Liquid Film.

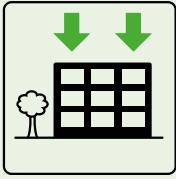
KÖSTER KSK ALU Strong is applied onto the

dry and primed roof area. Membranes have to overlap a min. of 10 cm on each side. Connections, penetrations and overlaps are sealed with KÖSTER KBE Liquid Film.

Always adhere to the specifications in the respective Technical Guidelines.

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## Flat roof waterproofing with liquid applied systems



Concrete roofs are often difficult to waterproof with membranes due to numerous penetrations and complex geometry. KÖSTER has developed several liquid applied elastic waterproofing systems for roofs based on different types of technologies from the mineral base material to the MS polymer technology. Any of the options available are directly applied onto the prepared concrete substrate by roller, brush or spraying.

### Roof waterproofing with MS polymer liquid membrane

- 1 **Concrete Repair**  
KÖSTER Betomor Multi A  
KÖSTER Repair Mortar Plus
- 2 **Primer**  
KÖSTER CT 121
- 3 **Installing fillets**  
KÖSTER WP Mortar
- 4 **Waterproofing wall / floor junctions**  
KÖSTER Superfleece
- 5 **Waterproofing layer**  
KÖSTER MS-Flexfolie



For every job, the proper KÖSTER material can be used in combination to provide a complete system for the renovation of leaking roof structures or in new construction.

KÖSTER offers a state-of-the-art MS Polymer waterproofing material with numerous advantages compared to other liquid membranes available. This special product is a convenient ready to use material (1 component) for a seamless waterproofing coat with simple

application and a thixotropic consistency for slope and vertical areas. The KÖSTER MS-Flexfolie adheres to multiple substrates, has an extraordinary UV resistance as proven by the acceleration tests results, and maintains its properties on temperatures between - 30 C to + 80 C. For a demanding waterproofing job, this special product offers > 500% elasticity and it is free of solvents or any other harmful substances.

Always adhere to the specifications in the respective Technical Guidelines

## Roof waterproofing with resin base liquid membrane



- 1 **Concrete Repair**  
KÖSTER Betomor Multi A  
KÖSTER Repair Mortar Plus
- 2 **Primer**  
KÖSTER Polysil TG 500
- 3 **Installing fillets**  
KÖSTER WP Mortar
- 4 **Waterproofing wall / floor junctions**  
KÖSTER Superfleece
- 5 **Waterproofing layer**  
KÖSTER Dachflex
- 6 **Reinforcement**  
KÖSTER Flex Fabric  
KÖSTER Glass Fiber Mesh

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Damaged roofs and structures may require multiple products for proper protection. Substrate preparation is a key factor for a durable renovation. It must provide a sound basis for the area waterproofing. The waterproofing system waterproofing should have multiple advantages, such as being liquid applied and therefore seamless. It should also have crack-bridging capabilities. KÖSTER Dachflex is a one-component polymeric waterproofing material that meets all these demands, and provides an easy to apply, durable and reliable waterproofing solution.

KÖSTER Dachflex is a solvent free, fast

drying, breathable waterproofing liquid membrane based on styrene acrylic dispersions. After full cure it forms a watertight, seamless elastic coat with water vapor permeability and UV reflectance properties, resistant to weathering, frost, and de-icing salts.

KÖSTER Dachflex can be used for new construction or the repair of flat roofs, balconies and terraces under tiles, mineral based facades, as well as facade crack repair system.

Always adhere to the specifications in the respective Technical Guidelines.

## Roof waterproofing with mineral base liquid membrane

- 1 **Concrete Repair**  
KÖSTER Betomor Multi A  
KÖSTER Repair Mortar Plus
- 2 **Primer**  
KÖSTER Polysil TG 500
- 3 **Installing fillets**  
KÖSTER WP Mortar
- 4 **Waterproofing wall / floor junctions**  
KÖSTER Superfleece
- 5 **Waterproofing layer**  
KÖSTER 21
- 6 **Reinforcement**  
KÖSTER Flex Fabric  
KÖSTER Glass Fiber Mesh



Damaged roofs and structures may require multiple products for proper protection. Substrate preparation is a key factor for a durable renovation. It must provide a sound basis for the area waterproofing. The waterproofing system should have multiple advantages, such as being liquid applied and therefore seamless. It should also have crack-bridging capabilities. KÖSTER 21 is a 2 component, solvent-free, liquid applied, elastic, crack bridging waterproofing material with excellent adhesion to dry and moist substrates that meets all these requirements. It is liquid applied and therefore seamless, which greatly eases application to complicated architectural

details. Due to its UV stability it is suitable for indoor and outdoor use.

The white color reflects sunlight and reduces building surface temperatures. The fast curing coating is highly flexible, resistant to occasional foot traffic, aging, hydrolysis, UV-rays, frost, and salt.

KÖSTER 21 seals up to 2 bar against synthetic oils and aliphatic hydrocarbons with high boiling points. KÖSTER 21 does not contain volatile organic compounds (VOC content = 0), is free of polyurethanes, isocyanates, and bitumen.

Always adhere to the specifications in the respective Technical Guidelines.

### Good to know: TPO and ECB Roofing Membranes

KÖSTER TPO Roofing Membranes can be installed by mechanical fastening, loose laying, or full surface adhesion on flat or green roofs. They stand out due to their excellent application and outstanding mechanical properties as well as through their durability and sustainability. KÖSTER produces both thermoplastic polyolefine (TPO) and ethylene copolymer bitumen membranes. The standard color of KÖSTER TPO Membranes is light grey, for ECB Membranes the standard color is black.





**KÖSTER**  
MS-Flexfolie

2 x 4 kg tubular bags  
(W 200 008)

25 kg bucket  
(W 200 025)

KÖSTER MS-Flexfolie is a single component, solvent free, highly elastic, crack bridging waterproofing material based on MS Polymer technology. KÖSTER MS-Flexfolie does not contain isocyanates, is quickly resistant to rain as well as occasional foot traffic, aging, hydrolysis, UV-rays, salts, and frost.

**Consumption:** Approx. 1.5 – 2.5 kg / m<sup>2</sup>



**KÖSTER**  
21

20 kg Combipackage;  
1 x 8 kg Powder;  
2 x 6 kg Liquid  
(W 210 020)

A multi purpose 2 component waterproofing, solvent-free, liquid applied, elastic and crack bridging material. Due to its UV stability it is suitable for indoor and outdoor use. The white color reflects sunlight and reduces building surface temperatures. The fast curing coating is highly flexible, resistant to occasional foot traffic, aging, hydrolysis, UV-rays, frost, and salt.

**Consumption:** Approx. 2.5 – 3.0 kg / m<sup>2</sup>



**KÖSTER**  
Dachflex

20 kg bucket  
(R 260 020)

Liquid applied, 1 component synthetic waterproofing for roofs. KÖSTER Dachflex is a foil like coating, waterproof, and water vapor permeable. The material is highly elastic, quick drying, pasty, solvent-free and is also suitable for the repair of leaky flat roofs.

**Consumption:** Approx. 0.75 - 1.0 kg / m<sup>2</sup> per coat; 1.5 to 2.0 kg / m<sup>2</sup> total consumption



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We produce high-quality products according to German standards, that our customers all over the world can rely on to protect their buildings.



**KÖSTER**  
Contact Adhesive

4.5 kg bucket  
(RT 102 004)

KÖSTER Contact Adhesive is a ready to use, one-component contact adhesive for details and connections with non-fleece backed KÖSTER ECB and KÖSTER TPO Membranes to non-TPO substrates.

**Consumption:** Approx. 175 - 250 g / m<sup>2</sup> per side



**KÖSTER**  
2C PUR Membrane Adhesive

1.5 l cartridge  
(RT 104 001)

Two component, low viscosity adhesive for bonding fleece backed KÖSTER TPO/ECB roofing membranes.



**KÖSTER**  
PUR Membrane Adhesive

6.5 kg jerrycan  
(RT 101 065)

KÖSTER PUR Membrane Adhesive is a ready to use, one component, solvent free polyurethane for strip and full surface adhesion of KÖSTER fleece backed TPO and ECB membranes.

**Consumption:** Approx. 160 - 450 g / m<sup>2</sup>



**KÖSTER**  
TPO Cleaner

2.5 l jerrycan  
(RT 105 002)

Cleaner for KÖSTER TPO – Roofing Membranes

**Consumption:** Approx. 0.01 – 0.03 l per m



**KÖSTER**  
TPO Cleaning Tissue

450 sheets per roll  
(RT 105 003)

KÖSTER TPO Cleaning Tissue



**KÖSTER**  
TPO SK Primer

12 l bucket  
(RT 103 012)

Solvent based resin primer for the application of KÖSTER TPO SK (FR) Membranes.

**Consumption:** Approx. 200 - 400 g/m<sup>2</sup>



**KÖSTER  
ECB 2.0**

2.0 mm thick x 20 m long  
(RE 820 025 to RE 820 210)

KÖSTER ECB Membranes are made of a mixture of Ethylene Copolymer and a special bitumen. A glass fiber mesh is embedded in the middle of the membrane to provide an especially high dimensional stability and resistance against shrinkage. KÖSTER ECB Membranes are watertight, chemically resistant, and resistant to stress cracking. KÖSTER ECB Membranes are UV-stable, resistant to aging, and microorganisms and can be applied directly to bituminous roofs.

Available in rolls widths of 0,25m; 0,35m; 0,525m; 0,75m; 1,05m; 1,5m and 2,10m



**KÖSTER  
ECB 2.0 U**

2.0 mm x 0.525 m x 20 m  
(RE 820 052 U)

KÖSTER ECB 2.0 U is a roofing and waterproofing membrane based on ethylene copolymer bitumen (ECB). KÖSTER ECB 2.0 U is an accessory for the KÖSTER ECB roofing and waterproofing membranes for the manual production of gully and pipes flanges and manual production of corner patches.



**KÖSTER  
KSK ALU Strong**

roll  
(R 817 105 AS)

Cold applied self-adhesive synthetic / bitumen sealing membrane for the waterproofing of small, weather exposed roofs, garages and car ports. Applicable between + 12 °C and + 35 °C.

KÖSTER KSK ALU Strong does not require hot air or propane gas welding for its application. It is laminated and with a coarse grain embossed, UV resistant aluminum foil which is coated with a grey protective finish on the top side. For additional reinforcement a highly tear resistant fabric is embedded. Placement of a gravel layer on top of the membrane after installation is not required. 1.7 mm x 1.05 m x 10 m, 10.5 m<sup>2</sup>



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**KÖSTER  
TPO 1.2**

1.2 mm x 1.50 m x 30 m  
(RT 812 150)

KÖSTER TPO 1.2 is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).

KÖSTER TPO waterproofing membranes can be used in building waterproofing.



**KÖSTER  
TPO 1.5**

1.5 mm thick x 20 m long  
(RT 815 025 to RT 815 150)

KÖSTER TPO 1.5 is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).

KÖSTER TPO waterproofing membranes can be used in building waterproofing.

Available in rolls widths of 0,25m; 0,35m; 0,525m; 0,75m; 1,05m and 1,5 m



**KÖSTER**  
TPO 1.5 SK (FR)

1.5 mm x 1.05 m x 20 m  
(RT 815 105 SK FR)

Self-adhesive KÖSTER TPO Membrane with direct application to EPS insulation possible. Due to the combined effect of TPO Membrane and special polyester fleece with self-adhesive layer, a time-saving, easy, and cost-effective installation is ensured. The self-adhesive layer has a high initial adhesive strength which guarantees immediate and lasting membrane bonding and ensures optimal protection against wind suction forces. Additionally, the welding of seams is simple and safe with hot-air welding.



**KÖSTER**  
TPO 1.5 SK (FR) SG

1.5 mm x 1.05 m x 20 m  
(RT 815 105 SK FR SG)

KÖSTER TPO SK (FR) SG Membranes have a high resistance against hail, are UV stable, and have a high cold flexibility up to - 50 °C. A glass fiber fleece is embedded in the middle of the membrane to provide an especially high dimensional stability. KÖSTER TPO SK (FR) SG Membranes are free of softeners and chlorine and are therefore suitable for all types of insulation. The membranes are classified as Broof (t1) and fulfill the requirements for "hard roofs" and are suitable for the direct adhesion to EPS insulation.



KÖSTER TPO SK (FR) SG roofing and waterproofing membranes can be used in building waterproofing according to DIN 18531-18535.

**KÖSTER**  
TPO 1.8

1.8 mm thick x 20 m long  
(RT 818 025 to RT 818 210)

KÖSTER TPO 1.8 is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).



KÖSTER TPO waterproofing membranes can be used in building waterproofing.

Available in rolls widths of 0,25m; 0,35m; 0,525m; 0,75m; 1,05m; 1,5m and 2,10m

**KÖSTER**  
TPO 2.0

2.0 mm thick x 20 m long  
(RT 820 025 to RT 820 210)

KÖSTER TPO 2.0 is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).



KÖSTER TPO waterproofing membranes can be used in building waterproofing.

Available in rolls widths of 0,25m; 0,35m; 0,525m; 0,75m; 1,05m; 1,5m and 2,10m



**KÖSTER**  
TPO 2.0 F

2.0 mm thick x 20 m long  
(RT 820 052 F to RT 820 150 F)

KÖSTER TPO 2.0 F is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with a central glass fleece insert and an additional polyester fleece backing. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering, used under load (e.g. gravel, green roofs) or used for installation with adhesive.

KÖSTER TPO waterproofing membranes can be used in building waterproofing.

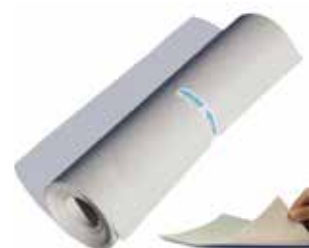
Available in rolls widths of 0,525m; 0,75m; 1,05m and 1,5 m



**KÖSTER**  
TPO 2.0 F (FR)

2.0 mm x 1.50 m x 20 m  
(RT 820 150 F FR)

KÖSTER TPO 2.0 F (FR) is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with a central glass fleece insert and an additional polyester fleece backing with high fire resistance. KÖSTER TPO F (FR) roofing membranes are mechanically fastened to seal roofs with direct weathering or used for installation with adhesive at EPS insulation.



**KÖSTER**  
TPO 2.0 F W

2.0 mm x 1.05 m x 20 m  
(RT 820 105 F W)

2.0 mm x 1.50 m x 20 m  
(RT 820 150 F W)

KÖSTER TPO 2.0 F W is a hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with a central glass fleece insert and an additional polyester fleece backing. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering, used under load (e.g. gravel, green roofs) or used for installation with adhesive.

KÖSTER TPO 2.0 F W is a white membrane with a SRI value of 106.



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**KÖSTER**  
TPO 2.0 SG

2.0 mm x 1.50 m x 20 m  
(RT 820 105 SG)

KÖSTER TPO 2.0 SG is a slate-grey hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).

KÖSTER TPO waterproofing membranes can be used in building waterproofing.



**KÖSTER**  
TPO 2.0 SK (FR)

2.0 mm x 1.05 m x 20 m  
(RT 820 105 SK FR)

Self-adhesive KÖSTER TPO Membrane with direct application to EPS insulation possible. Due to the combined effect of TPO Membrane and special polyester fleece with self-adhesive layer, a time-saving, easy, and cost-effective installation is ensured.

KÖSTER TPO SK (FR) Membranes are free of softeners and chlorine and are therefore suitable for all types of insulation. The membranes are classified as Broof(t1) and Broof(t4) and fulfill the requirements for "hard roofs" and are suitable for the direct adhesion to EPS insulation.



**KÖSTER**  
TPO 2.0 U

2.0 mm x 0.525 m x 20 m  
(RT 820 052 U)

2.0 mm x 0.525 m x 20 m  
(RT 820 052 U W)

2.0 mm x 1.05 m x 20 m  
(RT 820 105 U)

KÖSTER TPO Membranes are made of flexible polyolefin. It offers a high reliability and is characterized by a fast and economical installation. KÖSTER TPO Membranes are UV-stable, resistant to aging, microorganisms, and can be applied directly onto old bitumen membranes.

KÖSTER TPO U are unreinforced homogeneous TPO Membranes for the creation of drainage and ventilation flanges and corner reinforcements.



**KÖSTER**  
TPO 2.0 W

2.0 mm x 1.05 m x 20 m  
(RT 820 105 W)

2.0 mm x 1.50 m x 20 m  
(RT 820 150 W)

KÖSTER TPO 2.0 is a white hot-air-welding plastic roofing and waterproofing membrane made of thermoplastic polyolefins (TPO) based on Polyethylene with centrally embedded glass fleece reinforcement and a solar reflectance index (SRI) of 106. KÖSTER TPO roofing membranes are mechanically fastened to seal roofs with direct weathering and are used under load (e.g. gravel, green roofs).

KÖSTER TPO waterproofing membranes can be used in building waterproofing.



**KÖSTER**  
TPO Pro 1.5

1.5 mm x 1.50 m x 20 m  
(RT 815 150 Pro)

KÖSTER TPO Pro 1.5 is a highly specialized roof waterproofing membrane for professional use on freely weathered industrial roofs in lightweight construction. It provides with its high sustainability, economy and longevity a modern and resource friendly building culture.



**KÖSTER**  
TPO Pro 1.8

1.8 mm x 1.50 m x 20 m  
(RT 818 150 Pro)

KÖSTER TPO Pro 1.8 is a highly specialized roof waterproofing membrane for professional use on freely weathered industrial roofs in lightweight construction. It provides with its high sustainability, economy and longevity a modern and resource friendly building culture.



**KÖSTER**  
Attica Spout  
120\*60\*300 mm

piece  
(RT 917 001 B)

Rectangular attica spout, black.



**KÖSTER**  
Attica Spout  
300\*80\*300 mm

piece  
(RT 917 003 B)

Rectangular attica spout, black.



**KÖSTER**  
Bar for membrane  
fastening

piece  
(RT 919 004)

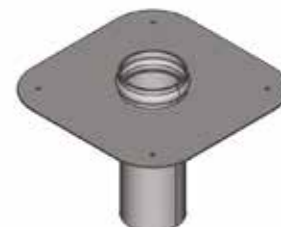
Width/ Height/Length in mm: 30/1,25/2400;  
holes: 7+15 mm, (Bundle = 10 piece)



**KÖSTER**  
Base for Sanitary  
Vent DN 100

piece  
(RT 915 024)

Sanitary Vent Base for insulated roofs DN 100



**KÖSTER**  
Baseplate Roof Vent  
DN 100

piece  
(RT 915 015)

Base plate with KÖSTER TPO-F cuff, suitable for system  
vent



**KÖSTER**  
Edge for wall  
connection profile  
60 mm

piece  
(RT 919 001)

Edge for wall connection profile made in PVC. Adaptable  
for corners and terminations for the aluminum profile.

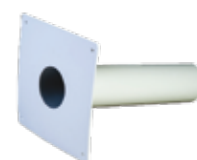


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**KÖSTER**  
Emergency Overflow  
100\*110\*490 mm

piece  
(RT 918 011)

Emergency overflow PE, light gray, round DN 100, external  
diameter 110 mm, pipe length 490 mm



**KÖSTER**  
Emergency Overflow  
120\*60\*300 mm

piece  
(RT 918 001 B)

Emergency overflow, black.



**KÖSTER**  
Emergency Overflow  
300\*80\*300 mm

piece  
(RT 918 003 B)

Emergency overflow, black.



**KÖSTER**  
External Corner black  
90 degrees

piece  
(RT 901 001 B)

For the professional creation of external corners, 90°, length of edge 100 mm



**KÖSTER**  
External Corner black  
height 30 cm

piece  
(RT 901 002 B)

For the professional creation of external corners, 90°, length of edge 300 mm.



**KÖSTER**  
External Corner light  
grey 90 degrees

piece  
(RT 901 001)

For the professional creation of external corners, 90°, length of edge 100 mm



**KÖSTER**  
Galvanized leaf trap,  
NW 100

piece  
(RT 915 009)

Leaf trap for roof drain NW 100.



**KÖSTER**  
Galvanized leaf trap,  
NW 120

piece  
(RT 915 010)

Leaf trap for roof drain NW 120.



**KÖSTER**  
Galvanized leaf trap,  
NW 80

piece  
(RT 915 008)

Leaf trap for roof drain NW 80.



**KÖSTER**  
Hand press for  
KÖSTER 2C PUR  
Membrane Adhesive

piece  
(RT 999 001)

Electrically operated lance / pistol for applying the KÖSTER 2C PUR Membrane Adhesive.





**KÖSTER**  
Internal Corner black  
90 degrees  
piece  
(RT 902 001 B)



**KÖSTER**  
Internal Corner black  
height 30 cm  
piece  
(RT 902 002 B)



**KÖSTER**  
Internal Corner light  
grey 90 degrees  
piece  
(RT 902 001)



Leister Automatic  
Welder Uniroof 700  
piece  
(RT 991 001)

Automatic welder 220-240 Volt, 3450 Watts, 40 mm, overlap, EU plug, includes storage case.



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Leister Automatic  
Welder Varimat V2  
piece  
(RT 990 001)

Automatic welder 400 Volt 5700 Watts, 40 mm includes storage case.



**KÖSTER**  
Leister Hand  
Pressure Roller 40 mm  
piece  
(RT 998 001)

Silicone, ball bearing, one arm pressure roller.



Leister Hot-Air Hand  
Tool  
piece  
(RT 992 001)

Hot-Air hand tool Triac AT, 230 Volt, 1600 Watts, wide slot nozzle 2 mm x 40 mm.



**KÖSTER**  
Leister Wide Slot  
Nozzle 40 mm  
piece  
(RT 995 001)



**KÖSTER**  
Maintenance  
Walkway Mat  
piece  
(RT 925 001)

For creating safe protective walkways on flat roofs. Weldable with KÖSTER TPO and KÖSTER ECB roofing membranes.



**KÖSTER**  
More  
piece  
(RT 914 016)

Adapter for KÖSTER T Gully and KÖSTER T extension element for emergency drainage.



**KÖSTER**  
Pipe Flashing  
10/300 light grey  
piece  
(RT 905 001)

For the safe waterproofing of lightning protection cables and other cable penetrations, includes shrink tubing, inner diameter 10 mm, height 300 mm.



**KÖSTER**  
Pipe Flashing  
15/120 black  
piece  
(RT 906 001 B)

For the safe waterproofing of cable penetrations, includes shrink tubing, inner diameter 15 mm, height 120 mm.



**KÖSTER**  
Pipe Flashing 20/300  
light grey  
piece  
(RT 905 002)

For the safe waterproofing of lightning protection cables and other cable penetrations, includes shrink tubing, inner diameter 20 mm, height 300 mm.



**KÖSTER**  
Pipe Flashing  
30/300 light grey  
piece  
(RT 905 005)

For the safe waterproofing of lightning protection cables and other cable penetrations, includes shrink tubing, inner diameter 30 mm, height 300 mm.



**KÖSTER**  
Pipe Flashing  
34/180 light grey

piece  
(RT 904 002)

For the safe waterproofing of cable penetrations, inner diameter 34-93 mm, height 120-180 mm.



**KÖSTER**  
Pipe Flashing  
40/300 light grey

piece  
(RT 905 003)

For the safe waterproofing of cable penetrations, includes shrink tubing, inner diameter 40 mm, height 300 mm.



**KÖSTER**  
Pipe Flashing  
50/300 light grey

piece  
(RT 905 006)

For the safe waterproofing of lightning protection cables and other cable penetrations, includes shrink tubing, inner diameter 50 mm, height 300 mm.



**KÖSTER**  
Pipe Flashing  
8/180 black

piece  
(RT 904 001 B)

For the safe waterproofing of cable penetrations, inner diameter 8 mm, height 180 mm.



**KÖSTER**  
Pipe Flashing  
8/180 light grey

piece  
(RT 904 001)

For the safe waterproofing of cable penetrations, inner diameter 8 mm, height 180 mm.



**KÖSTER**  
T Roof Drain  
Extension

piece  
(RT 914 014)

Extension element with foamed-in KÖSTER TPO-F cuff, vertical, suitable for KÖSTER T roof drain.



**KÖSTER**  
Roof Drain  
T DN 100 angled

piece  
(RT 914 011 A)

Roof drain with foamed-in KÖSTER TPO-F cuff, angled, with gravel trap.



R

**KÖSTER**  
Roof Drain  
T DN 100 vertical

piece  
(RT 914 010 S)

Roof drain with foamed-in KÖSTER TPO-F cuff, vertical, with gravel trap.



**KÖSTER**  
Roof Drain  
T DN 125 vertical

piece  
(RT 914 012 S)

Roof drain with foamed-in KÖSTER TPO-F cuff, vertical, with gravel trap.



**KÖSTER**  
Roof Drain  
without Leaf Trap  
NW 100 black

piece  
(RT 915 002 B)

ECB roof drain, NW 100, black.



**KÖSTER**  
Roof Drain  
without Leaf Trap  
NW 100 light grey

piece  
(RT 915 002)

TPO roof drain, NW 100, light grey.



**KÖSTER**  
Roof Drain  
without Leaf Trap  
NW 125 black

piece  
(RT 915 003 B)

ECB roof drain, NW 125, black.



**KÖSTER**  
Roof Drain  
without Leaf Trap  
NW 125 light grey

piece  
(RT 915 003)

TPO roof drain, NW 125, light grey.





**KÖSTER** ECB roof drain, NW 70, black.  
Roof Drain  
without Leaf Trap  
NW 70 black

piece  
(RT 915 001 B)



**KÖSTER** TPO roof drain, light grey.  
Roof Drain  
without Leaf Trap  
NW 70 light grey

piece  
(RT 915 001)



**KÖSTER** System fan with KÖSTER TPO-F cuff for pipes, room and cold roof ventilation of flat and sloped, used and unused roof surface.  
Roof Vent DN 100

piece  
(RT 915 014)



**KÖSTER** Rain Hood, suitable for KÖSTER Vent system fan.  
Roof Vent Rain Hood

piece  
(RT 915 020)



R

**KÖSTER** Roof vent light grey, NW 100 with light grey cap.  
Roof Vent with Cap  
NW 100

piece  
(RT 916 002)



**KÖSTER** Roof vent light grey, NW 70 with light grey cap.  
Roof Vent with Cap  
NW 70

piece  
(RT 916 001)



**KÖSTER** Roof vent light grey, NW 75 with light grey cap.  
Roof Vent with Cap  
NW 75

piece  
(RT 916 003)



**KÖSTER**  
Round Corner  
Patch black

100 pieces  
(RT 903 001 B)

For the waterproofing of corner formations such as skylights.



**KÖSTER**  
Round Corner  
Patch light grey

100 pieces  
(RT 903 001)

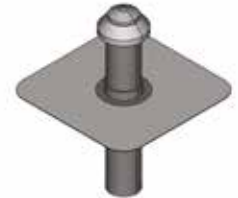
For the waterproofing of corner formations such as skylights.



**KÖSTER**  
Sanitary Vent DN 100

1 piece  
(RT 915 023)

Sanitary fan with KÖSTER TPO flange for pipes and room ventilation of flat and sloped, used and unused roof surface



**KÖSTER**  
TPO External Corner  
white 90 degrees

1 piece  
(RT 901 001 W)

For the professional creation of external corners, 90°, length of edge 100 mm



**KÖSTER**  
TPO Internal Corner  
white 90 degrees

1 piece  
(RT 902 001 W)

For the professional creation of internal corners, 90°, length of edge 100 mm



**KÖSTER**  
TPO Metal  
Composite Coil black

1 m x 30 m, 30 m<sup>2</sup> roll  
(RT 910 030 B)

As gutter flashing, coping, or drip edge with one-sided weld-able TPO coating. Coil 1 m x 30 m, sheet.



**KÖSTER**  
TPO Metal  
Composite Coil light  
grey

1 m x 30 m, 30 m<sup>2</sup> roll  
(RT 910 030)

As gutter flashing, coping, or drip edge with one-sided weld-able TPO coating. 1 m x 30 m coil.



**KÖSTER**  
TPO Metal  
Composite Coil  
slate grey

1 m x 30 m, 30 m<sup>2</sup> roll  
(RT 910 030 SG)

As gutter flashing, coping, or drip edge with one-sided weld-able TPO coating. 1 m x 30 m coil.



**KÖSTER**  
TPO Metal  
Composite Sheet  
black

piece  
(RT 910 002 B)

One-sided TPO coated zinc plated metal sheet used to fabricate metal drip edges and other roofing edge profiles.



**KÖSTER**  
Metal Composite  
Sheet light grey

piece  
(RT 910 002)

One-sided TPO coated zinc plated metal sheet used to fabricate metal drip edges and other roofing edge profiles.



**KÖSTER**  
TPO Metal  
Composite Sheet  
slate grey

piece  
(RT 910 002 SG)

One-sided TPO coated zinc plated metal sheet used to fabricate metal drip edges and other roofing edge profiles.



R

**KÖSTER**  
Vapor Barrier FR

1500 mm x 50 m, 75 m<sup>2</sup> roll  
(RT 920 075 B)

Self adhesive hardwearing aluminium vapor barrier with low fire load according to the DIN 18234. KÖSTER Vapor Barrier FR has a very high Sd value of > 1500 m, making it practically vapor tight. It is characterized by a simple and fast installation and high perforation resistance. The self-adhesive backing is covered with a protective foil.



**KÖSTER**  
Walkway  
Membrane grey

1 m x 10 mm, 10 m roll  
(RT 927 010)

For creating foot access paths on flat roofs, hot air weldable with KÖSTER TPO and ECB Membranes (w: 1000 mm; l: 10 m)..



**KÖSTER**  
Wall connection  
profile 60 mm

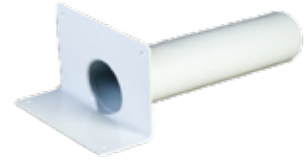
piece  
(RT 919 003)

Finishing profile, aluminium, length 3 m, perforated.



**KÖSTER**  
Water Spout DN 100  
piece  
(RT 917 011)

Water spout PE, round, DN 100 light grey, external diameter 110 mm, pipe length 480 mm.



**KÖSTER**  
Water Spout DN 70  
piece  
(RT 917 010)

Water spout PE, round, DN 70 light grey, external diameter 75 mm, pipe length 480 mm.



**KÖSTER**  
Weld Seam Tester  
piece  
(RT 929 001)

Weld seam tester for testing and inspection of seams on KÖSTER TPO and ECB Roofing Membranes.



**Good to know:** Installation methods



Full surface adhesion



Mechanical fastening



Under ballast / green roofs



Complex geometries

Our KÖSTER TPO membranes provide the perfect conditions for a top certification for residential and commercial buildings as well as industrial buildings regarding the aspect of sustainable construction. Accordingly, KÖSTER is a member of the Institut für Bauen und Umwelt (IBU). From IBU, KÖSTER receives Environmental Product Declarations (EPD) for the KÖSTER TPO membranes. These EPD contain all required data for an evaluation by certified companies such as DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen), Leed (Leadership in Energy and Environmental Design), and Breeam (Building Research Establishment Environmental Assessment Methodology). With consistent positive evaluations for the extensive lifecycle, lack of plasticizers and excellent recyclability the material regularly gains Gold ratings (or even higher, with the DGNB) for buildings.



In addition to our KÖSTER TPO roofing membranes, we provide a wide range of system accessories. This includes among others molded parts for corners and penetrations, connection sleeves, composite sheets and maintenance mats as well as accessories for drainage and ventilation.





X

Accessories



**KÖSTER**  
Diagnosis Case

piece  
(X 919 001)

The KÖSTER Diagnosis case allows for the on site testing of common salts (chlorides, nitrates, sulfates). The case contains all necessary tools for taking samples and sample preparation as well as for the execution of the analysis including a small digital hand scale. Also included with the case are work instructions, a notepad, and a pen for documentation.



**KÖSTER**  
Drill Stirrer

piece  
(X 911 001)

Special stirrer for mixing 2-component polymer modified bitumen thick film sealants, e.g. KÖSTER NB 4000, KÖSTER Deuxan 2C and KÖSTER Bikuthan 2C. Round connector Ø 12 mm for chuck.



**KÖSTER**  
Ring Spanner

piece  
(X 916 001)

For easy opening and closing of 10 l and 30 l jerrycans.



**KÖSTER**  
Spatula

width: 20 mm, piece  
(X 986 001)

width: 50 mm, piece  
(X 987 001)

For the application of KÖSTER KB-Flex 200 Sealing Paste, etc.



**KÖSTER**  
Universal Cleaner

10 l jerrycan  
(X 910 010)

Solvent free cleaning agent for bituminous materials and epoxy resins.

**Consumption:** as needed





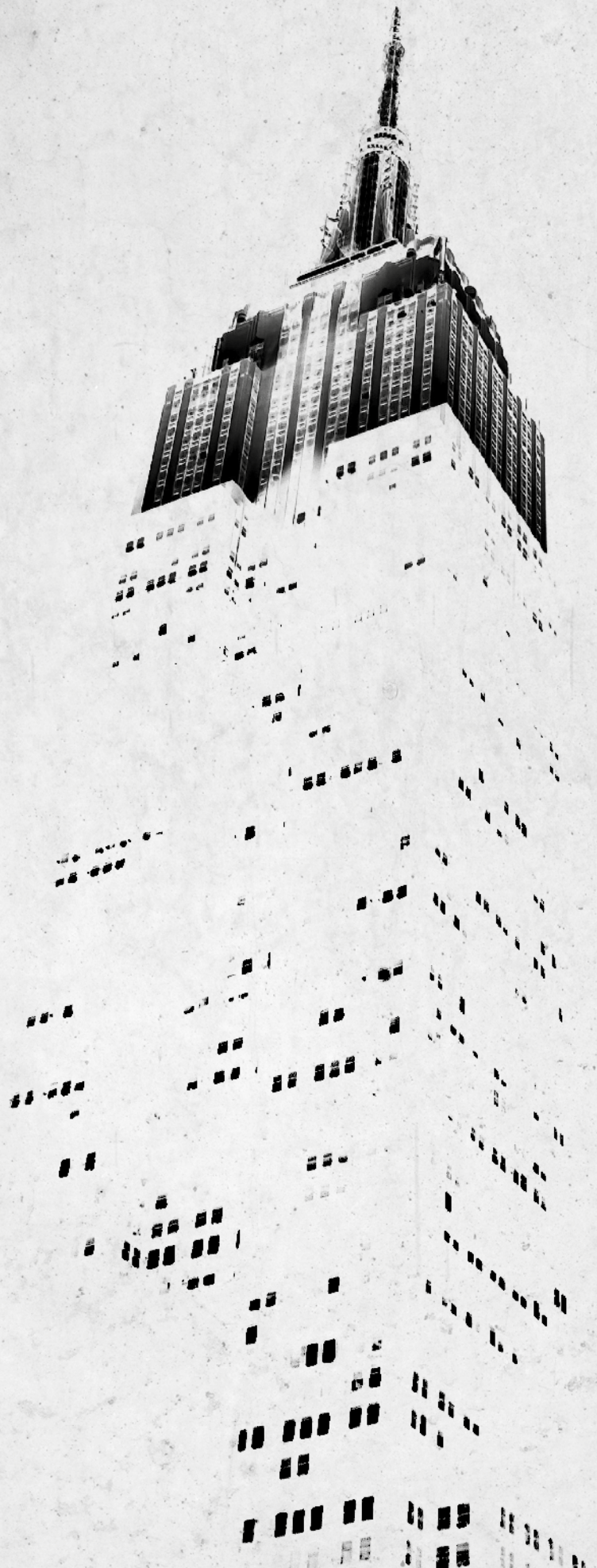




**KÖSTER**

## Waterproofing solutions from basement to roof

We have been developing and producing waterproofing systems since 1982 that protect and preserve valuable building structures, meeting with the highest standards all along the way. In short, where water is a problem, we are there with a solution for the owners, engineers, architects, and all our clients.





# Terms and conditions of business, supply and payment, as of July 2014

## I. General

The following terms and conditions of supply and payment apply to the entire business relationship with our customers. The purchaser accepts them as binding on them in respect of the current contract and also for all future transactions. Any alternative agreement requires our written confirmation. The purchaser asserts no purchase terms of their own. They also do not become part of the contractual terms and conditions by consequence of our non-communication or supply.

## II. Quotation and supply

1. Our quotations are non-binding.
2. If we are prevented by a hindrance from fulfilling the contract on time by procurement, manufacturing or supply failures – on our part or on the part of our suppliers – e.g. due to an energy shortage, traffic disruption, strike action or lockout, the supply period is extended accordingly. The purchaser can only withdraw from the contract if, on expiry of the extended term, they set us a final deadline in writing. Withdrawal can only be made if we have not fulfilled within the final deadline and withdrawal is notified in written form.
3. If our fulfillment of the contract is made partially or completely impossible for the reasons stated in paragraph 2, we are released from our supply obligation.
4. We will inform the purchaser immediately of the hindrance under paragraph 2 and the impossibility under paragraph 3.
5. Compensation claims by the purchaser arising from delay or non-fulfillment are excluded, to the extent that malicious intent or gross negligence on our part is not proven.
6. If the purchaser is in default of payment in respect of an earlier supply, we are entitled to withhold supplies without obligation to compensate for any loss caused.
7. We are entitled to make part supply.

## III. Prices

1. Invoices are raised at prices applicable at the date of the supply, if no special agreement has been made in this regard. If, in the case of a forward order or a make-and-hold order, only a part of the agreed quantity is accepted during the agreed period, we are entitled, at our discretion, either to invoice the supplied amount at the price applicable to that lot-size or to supply the quantity not called upon and raise an invoice.
2. If, in exceptional circumstances, we agree to a return of goods, we will invoice 20% of the net goods value to cover our costs. Generally, we do not accept the return of non-standard supplies.

## IV. Payment

1. Our invoices fall due for payment immediately after receipt of the invoice. However, we reserve the right, in individual cases, to agree to other payment terms at the time the contract is entered into. Default arises immediately after receipt of the invoice. In this regard, the invoice is deemed to be received three days after the date of the invoice, unless the recipient proves a later date of receipt.
2. In the case of default of payment on the part of the purchaser, we are entitled to charge default interest after the occurrence of default in accordance with generally agreed terms of business. A charge of EUR 15.00 per payment reminder is raised after the occurrence of default.
3. We reserve the right to decide on the acceptance of cheques and bills of exchange on a case-by-case basis. They are only accepted on account of payment. The credit is made under the normal reservations. For bills of exchange, we charge the normal bank discount and collection charges. We do not undertake any guarantee for the correct timing of encashment or remonstration.
4. In circumstances where a bill of exchange or cheque is not cashed on time or circumstances arise regarding the purchaser, which, in our view, no longer warrant the granting of credit, we can determine the whole amount due to us as falling due immediately – even if bills of exchange or cheques have been provided in respect of it.
5. Only persons with our written power of collection are entitled to receive payments with the issue of one of our receipt forms.
6. The purchaser can only assert a right of retention, if it relates to the same contractual relationship. The purchaser is only entitled to an offset if we have recognized the opposing amount due or it has been legally recognized.
7. If the purchaser gets into default with an invoice, and the value of this invoice reaches a significant amount for the business

relationship, all receivables of this business relationship fall due immediately independent of any acceptance of bills of exchange. We are furthermore entitled to demand prepayment before any future delivery.

8. If the default is not dispelled within an acceptable final deadline, we are entitled to withdraw from the contract or to demand compensation due to non-fulfillment. This applies in particular to agreed but not delivered follow-up business. In circumstances where information arises regarding the purchaser, which in our view, no longer warrant the granting of credit, we are entitled, apart from before made agreements, to demand prepayment or payment on delivery of the material. The purchaser is entitled to provide security for bills receivable.

## V. Retention of title

1. The goods remain our property until the payment of all, including future, amounts due to us arising as a result of our business relationship with the purchaser. This also includes conditional amounts receivable.
2. In the case of a processing or a combining of the goods subject to reservation of title with other items not belonging to us, we are entitled to a co-ownership share in the new item in the amount of the sales price invoiced to the purchaser including value added tax or other sales taxes. The purchaser holds the item in custody for us free of charge.
3. The purchaser may sell the goods subject to retention of title as part of orderly business activities, but only under terms of immediate payment or reservation of title; they are not entitled to provide other entitlements, in particular, the granting of security or a pledge.
4. The purchaser assigns to us the amount from his receivable with all ancillary rights from the onward sale of the goods subject to retention of title that corresponds with our invoice price inclusive of value added tax or other sales taxes.
5. Where the receivables of the purchaser from the onward sale are received into a current account, the purchaser also assigns herewith his receivable from their customer from the current account. The assignment is made at the amount that we invoiced to them for the goods resold subject to retention of title inclusive of value added tax or other sales taxes.
6. Subject to revocation, the purchaser is entitled to collect the receivables assigned to us. The assignment or pledging of these receivables is only permitted with our written agreement. Where circumstances arise in relation to the purchaser, which in our view, no longer warrant the granting of credit, at our request, the purchaser is to inform the debtors in writing of the assignment, to provide us with all information and make available and send us documentation. For this purpose, the purchaser is to grant us access, where necessary, to their documents in this respect.
7. In the case of the existence of the circumstances stated in para. 6, sentence 3, the purchaser must grant us access to the goods subject to the reservation of title still in their possession, to send us an accurate list of the goods, to separate the goods and release them to us.
8. If the value of this security exceeds the amount of our receivables by more than 20%, we will release the security to that extent, at the request of the purchaser and our discretion.
9. The purchaser is to inform us immediately in writing of the access of third parties to the goods subject to retention of title or the receivables assigned to us and to support us in intervention in every way.
10. The purchaser bears all of the costs for the fulfillment of the aforementioned cooperation obligations in the pursuit of all rights from the retention of title as well as all costs incurred in the preservation and storage of the goods.

## VI. Packaging and dispatch

1. Packaging follows normal commercial practices relevant to the goods. Special packaging and replacement packaging is charged at cost price. Supply is made by forward freight from the factory.

## VII. Transfer of risk

1. Risk is transferred to the purchaser as soon as the goods leave our factory or warehouse. All supplies, including any returns, travel at the risk of the purchaser.
2. Our supplies are not insured against damage whilst in transport.

## VIII. Responsibility for defects and compensation

1. The goods are supplied in the quality and finish as is normal for us at the time of the supply.

2. Our supplies are to be checked for correctness on receipt. Under or incorrect supplies as well as any defects can only be objected to within 14 days following receipt. Delayed notification of defects does not bring about any entitlement against us. This also applies in respect of non-evident defects, if the purchaser is a merchant.

3. Advice from our employees does not release the purchaser from their own examination of the product with regard to its suitability for its intended purpose and from the observation of the processing requirements of the manufacturer. In addition, technical application advice from our employees, processing instructions, consumption quantities etc., are only general guidelines and do not give rise to a contractual legal relationship or an additional obligation from the purchase contract. No liability arises from such activities. Consumption quantities in our technical leaflets are average values based on experience. Over or under consumption on specific objects do not initiate any rights or claims.

4. The guarantee obligation lapses if changes to the goods supplied have been carried out by the other party or if the purchaser does not immediately comply with our request for the return of the goods subject to complaint. It also lapses if the complete settlement of our invoices does not take place within the contractual or agreed period of credit.

5. If the goods supplied by us are faulty and we are notified within the time limit, we will replace the faulty goods without charge. In the absence of a replacement supply, the purchaser can withdraw from the contract. In the case of a complaint on the grounds of quality, a sample is to be submitted for examination, as appropriate.

6. Our guarantee obligation ends with the term as per law of the country to which the product is sold, at maximum five years. Longer guarantee periods are only binding if they have been confirmed by us in writing. In the case of any such extended guarantee, only the entitlement to the replacement of defective materials exists and not the refunding of costs of consequential damage, labor and handling or other compensation claims. To the extent that we grant the recognition of a defect – after the expiry of the guarantee under sentence 1 – we have the discretion of making an additional supply of the same, defect free materials at no cost or refunding the purchase price paid at the time, excluding ancillary costs such as freight.

7. Our liability is unlimited in cases of damages arising from injury to life, body or health and in all cases of damages caused intentionally or by gross negligence. Similarly our liability is unlimited for damages due to fraudulent concealment of a defect, for defects after having been given a guarantee, for damages covered under the German Product Liability Act (Produkthaftungsgesetz) and in all other cases established by law.

8. Claims for defects do not exist upon negligible difference to the agreed condition, upon negligible nuisance of usability, upon natural abrasion or damages which were caused after the transfer of risk due to faulty or negligent handling, inappropriate stocking or transport or which arise from particular outer influences which are not preconditioned by the contract. If the purchaser or a third party carry out any inappropriate modifications no claims arise hence nor for any subsequent consequences.

9. Contribution claims of the purchaser against the supplier do only exist insofar as the purchaser has not made any agreements with their customer that exceed legal defect claims.

10. All other claims, including compensation claims, by the purchaser against us on the grounds of the supply of defective goods are excluded. Nonetheless, should, on any grounds, a recovery of damages come into consideration, the purchase price of the consumed quantity applies as the maximum amount of the claim.

## IX. Other compensation claims

All other claims for compensation by the purchaser against us – irrespective of legal grounds – are excluded, to the extent that malicious intent or gross negligence on our part is not proven.

## X. Validity

Should any of these individual clauses – irrespective of the cause – not be operable, the validity of the remaining clauses is not affected as a result.

## XI. Place of jurisdiction

The place of jurisdiction for all disputes arising in connection with the contractual relationship – including withdrawal – is Ayrich, Germany.



We are there for you – worldwide.

Issued: 10/2022



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**KÖSTER**  
Waterproofing Systems

