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KÖSTER KB-Pur 222

Premium Quality Bitumen-Polyurethane Liquid Waterproofing
(2000% Elasticity)

General Information:

KÖSTER KB-Pur 222 is a premium quality polyurethane-bitumen liquid waterproofing membrane. It consists of two components, where the A component is as pure polyurethane prepolymer and the B component is a highly flexible and watertight, bitumen containing liquid mixed with chemical additives.

Together the components form a seamless waterproofing membrane with no joints, which is very flexible and has a elongation at break in excess of 2.500%.

KÖSTER KB-Pur 222 is the highest quality and bench mark product for bitumen-polyurethane membranes.

The material is very easy to mix with a 1:1 ratio and the application method is simple. Application is possible in one or multiple coats with a squeegee, brush, roller or airless spray equipment. After application the coating quickly cures to waterproof and protect buildings from the damages caused by unwanted water ingress and humidity.

Underground applications like foundations or waterproofing of balconies, terraces and verandas are only some of the many possible application areas.

KÖSTER KB-Pur 222 is resistant against plant roots and may be applied in green terrace applications.

KÖSTER KB-Pur 222 is black colored and is not resistant to UV, should be covered immediately after application.



Technical Data:

Tensile Strength	DIN 53 504	apr. 2,8-3,0 N/mm ²
Elongation	DIN 53 504	% 1750 – 2500
Solid content		% 85-90
Application temperature		+5°C to +30°C
Density	DIN 53217	1.04 g/cm ³
Pot life		60-90 min
Drying time	(+23°C, % 50 moisture)	12 – 24 hour
Viscosity		7.000–10.000 mPas
Shore A	DIN 53505	40
Tack free time (23°C)		4h
Recoat time (23°C)		24 h

Fields of Application:

Waterproofing of balconies, terraces and verandas (under tiles or screed), external basement foundation walls, wet and damp rooms like kitchen and bathrooms.

Flashing of chimneys, vent pipes, walls, windows and doors.

Green terrace applications and underground garages, shelters, concrete tanks etc.

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Suitable Substrates: concrete, render, screed, repair mortar, masonry, gas concrete, wood-OSB boards, repair of old bitumen membranes, fiber-cement boards and various metal surfaces.

Note: Specific primer which is suitable for the application substrate should be selected!

Application Procedure:

Substrate preparation:

The substrate has to be dry, sound and solid, free of cement laitance, paint, dust, form oil and other contaminants that might affect the bonding adversely. Suitable tools for surface preparation are wire brushes, high-pressure water jets, sand- and shotblasting. After surface preparation the substrate should be rough with a sandpaper-like texture and should be absorbent.

Floor-wall junctions should be rounded with a fillet (radius=4cm) made from KÖSTER Repamor (cement-based repair mortar).

Movement joints should be waterproofed with KÖSTER Flex Band (dilatation tape) and KÖSTER KB-Fix (epoxy adhesive) or KÖSTER Fugenspachtel FS-H (polysulfide sealant).

Surface imperfections and honeycombs should be chiselled open. Honeycombs and depressions larger than 5 mm should be filled with KÖSTER Repamor (cement-based repair mortar) or KÖSTER Repamor THIN (cement-based fine repair and patching mortar) and be left for curing for at least 24 hours.

Crack bridging: Visible cracks on concrete surfaces must be widened and repaired before application. After widening of the cracks, epoxy primer is applied and then repaired with KÖSTER KB-Pur 222 and KÖSTER Super Fleece reinforcement tape (see technical data sheet of KÖSTER Super Fleece for details).

Under all conditions the adhesion to concrete surfaces (pull-off strength) must be above 1,5 N/mm² and moisture of the concrete must be below 4%. In case of rising damp, appropriate measures should be taken.

Primer application on concrete substrate:

KÖSTER KB-Pox 002 or KÖSTER KB-Pox 008 should be used as a primer on concrete substrates, fiber-cement boards and wood/OSB boards.

The primer should be applied with a brush or roller. Very absorbent concrete substrates should be primed twice.

The consumption for the primer coat is approx. 0.30 – 0.50 kg/m² (consumption may vary depending on substrate).

After the application of the primer wait 8-24 hours before applying the waterproofing material. Do not exceed 24 hours waiting time as this may decrease adhesion to the waterproofing material.

Mixing procedure:

Empty the A component (transparent prepolymer) into a suitable, clean container. Start to slowly mix the prepolymer using a motorized, low rpm mixer and a suitable mixing blade. Add the B component (black bitumen part) in small portions while mixing slowly and continue mixing for approx. 3 minutes. To prevent mixing mistakes, empty the mixed material into a fresh container and remix for 1 minute. Leave the mixed material for approx. 1 minute so the air bubbles can escape and immediately apply the material. Application should be done in one single coat (if possible). If the application must be done in multiple coats always clean the surface before application (prevent dust on the surface, clean sand, small rocks etc and check for moisture or water on the surface) and do not wait more than 8-24 hours between coats (delamination and poor adhesion may occur).

Application procedure:

Application is done in one or two coats with a trowel, brush, roller or suitable spray equipment.

If the application is done in a single coat, spread the material carefully with a suitable squeegee or adjustable trowel. Immediately pass over the surface with a spike roller to release entrapped air bubbles. After curing the surface should be shiny, smooth and free of air bubbles.

If the application is done in multiple coats, apply the first layer and leave it to cure for 8-24 hours (depending on temperature and humidity). Before applying the second layer carefully clean first layer from dust, sand grains, water droplets or other contaminations.

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that might affect the bonding of the second coat adversely.

Floor-wall junction fillets, connections and cracks should be waterproofed with KÖSTER KB-Pur 214 embedded in a 10-20cm wide stripe KÖSTER Super Fleece reinforcement tape.

The finished application should be protected against water and rain, outdoor weather conditions and mechanical forces until the coat is dry.

Under Screed: If you are using KÖSTER KB-Pur 222 as waterproofing layer under a cement screed, use one layer of PE plastic foil (apr. 0,15 mm thickness) as a separating layer.

Under Tile: If you are using KÖSTER KB-Pur 222 as waterproofing layer under ceramic tiles, sprinkle KÖSTER MO 20 sand (apr. 1,0 kg/m²) onto the last layer (while fresh) as a key coat for good adhesion to the tile adhesive.

Under Gravel: If you are using KÖSTER KB-Pur 222 as waterproofing layer on a terrace with thermal insulation boards (XPS) and a gravel topping use following layers; waterproofing layer + PE plastic foil + XPS boards + non-woven geotextile fabric (200 gr/m²) and final layer is gravel stones. It is advisable to put a drainage layer between the XPS boards and the geotextile fabric!

Green Terraces: Please contact our technical department for application details.

Important note: KÖSTER KB-Pur 222 is not resistant to sunlight and should be covered immediately after application.

Consumption:

2,0 kg/m²

Packaging:

KÖSTER KB-Pur 222

30 kg SET



Cleaning of Tools:

Clean tools and equipment with KÖSTER Thinner No.1 while still fresh.

Storage and Shelf Life:

Shelf life is 6 months from the production date if stored in unopened and undamaged packages. Protect from humidity, water, freezing and direct heat sources and store at room temperature.

Production date, lot number and expiry date are printed on the packaging. Store pails upside down to prevent the ingress of moisture. Once pail is opened, use as soon as possible.

Safety Information:

Contains volatile flammable solvents! Do not approach with open flame and do not smoke during application. Only work outdoors and in adequately ventilated areas, provide adequate ventilation in indoor areas and consider that long-term solvent odor may occur. Use gloves, goggles and protective clothing. In case of contact with skin, wash with soap and water. In case of contact with eyes, rinse with plenty of water, seek medical advice immediately. Do not swallow, do not use empty packages to store foodstuffs and do not throw them into fire. For professional use only, keep out of reach of children.



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