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## KÖSTER Ultraflex-2K

### Bitumen-Polyurethane Ultra Elastic Waterproofing

#### **General Information:**

KÖSTER Ultraflex-2K is a two component, bitumen extended polyurethane waterproofing material with very high elasticity and excellent adhesion to most building materials.

The material consists of A component (transparent polyurethane prepolymer) and special mix of bitumen, solvent and chemical additives (black colored bitumen component). After the two components are mixed they quickly cure to form a very elastic and seamless waterproofing membrane. Application is done cold and with roller or airless spray equipment.

KÖSTER Ultraflex-2K is easy to apply and solve the most complex waterproofing details. After curing the material has permanent elasticity and has crack-bridging properties.



#### **Technical Data:**

Tensile Strength (7 days) DIN 53 504	2,1 N/mm <sup>2</sup>
Solid Content	%85-90
Application Temperature	+5C to +30C
Pot Life (+23C, % 50 moisture)	60-90 min.
Drying Time (+23C, % 50 moisture)	12 – 24 hour

Service Temperature \_\_\_\_\_ -30C to +80C

#### **Fields of Application:**

Waterproofing of balconies and terraces (under tiles and screed), external basement foundation walls, wet and damprooms like kitchen and bathrooms. Flashing of chimneys, vent pipes, walls, windows and doors.

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 open pores.

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).

Cracks and surface honeycombs should be chiselled open. Cracks, honeycombs and depressions larger than 5 mm should be filled with KÖSTER Repamor (cement-based repair mortar) and be left for curing for at least 24 hours.

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## Waterproofing Systems

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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 Ultraflex-2K and KÖSTER Superfleece reinforcement tape (see technical data sheet of KÖSTER Superfleece for details).

Under all conditions the adhesion to concrete surfaces (pull-off strength) must be above 1,5 N/mm<sup>2</sup> and moisture of the concrete must be below 4%.

### Primer application on concrete substrate:

KÖSTER KB-Pox 002 or KÖSTER KB-Pox 008 should be used as a primer on concrete substrates 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/m<sup>2</sup>.

### KÖSTER Ultraflex-2K application:

The material should be conditioned at room temperature for at least 24 hours.

Application is done in one or two coats with a brush, roller or suitable spray equipment. If the application is done in two coats, carefully clean first layer from dust, sand grains, water droplets or other contaminations that might affect the bonding of the second coat adversely.

Floor-wall junction fillets should be waterproofed with KÖSTER Ultraflex-2K embedded in a 20cm wide stripe of fibre mesh (80gr/m<sup>2</sup>) or KÖSTER Superfleece reinforcement tape.

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

**Under Screed:** If you are using KÖSTER KB-Pur 223 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 223 as waterproofing layer under ceramic tiles, sprinkle KÖSTER MO 20 sand (apr. 1,0

kg/m<sup>2</sup>) 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 223 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/m<sup>2</sup>) and final layer is gravel stones. It is advisable to put a drainage layer between the XPS boards and the geotextile fabric !

KÖSTER Ultraflex-2K is not resistant to sunlight and should be covered immediately after application.

### Consumption:

Total consumption in one or two coats 1,50 -2,0 kg/m<sup>2</sup>

### Packaging:

KÖSTER Ultraflex-2K 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.



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**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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