

# KÖSTER® KB-Pur 570

## Pure Polyurea Spray Elastomer

### **Product Description:**

Turkish product name > KÖSTER KB-Pur 570

KÖSTER KB-Pur 570 is a two part, 100% solids polyurea based and spray applied water proofing material.

Köster KB-Pur 570 contains no solvents and has 100% solids. It's VOC-free.

With correct primer selection it could be applied to different surfaces. It will form a seamless monolithic surfaces.

After application the material cures within 5-15 seconds to form a seamless, elastic, crack bridging and durable waterproofing membrane.

The cured membrane has excellent physical properties such as chemical, impact, cold, abrasion, heat and water resistance and durability. It could continuously stay in contact with water and has good durability to chemicals in earth. With special equipment it will be applied at 75°C temperature and with 150 bar pressure.

Because of this application method it forms a monolithic surface coat which takes the form of the substructure and in short time high amount of surfaces could be applied.



### **Specifications:**

- Very fast reaction and curing
- Highly elastic (400-500%)

- High chemical resistance
- High mechanical resistance
- High wear resistance
- High weatherability, long lifetime
- Resistance against hydrolysis
- Water vapour permeable

### **Applications fields:**

- Roofs, balcony, terraces
- Foundations and curtain walls
- Tanks and silos
- Pools and ponds

### **Color:**

RAL 7032, RAL 7040 standard color.

Note: Different RAL colors are available upon request.

### **Technical Data:**

Mixing ration	A:B (volumetric)	1 : 1
Density	ISO	app. 1,10 g / cm <sup>3</sup>
Density	RESIN	app. 1,02 g / cm <sup>3</sup>
Viscosity	Resin component	1000 mPa.s
Viscosity	ISO component	1200 mPa.s
Shore A hardness	DIN 53505	95
Shore D hardness		50
Elongation at break	DIN 53504	app. % 400-500
Tear resistance	ASTM D 624	35-40 kN / m
Tensile strength	ASTM D 614	20 MPa
Walking on surface after		1-4 hours
Full mechanical values		24-48 hours
Layer on layer application time		max. 5 hours
VOC amount		0 gr/ml

Adhesion to concrete (with KB-Pox 002 primer) > 2,0 N/mm<sup>2</sup>



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## **Instructions:**

### **Surface preparation:**

Surfaces must be clean, solid and dry. Dust, oil, grease, old coatings, laitance, efflorescence, rust, curing compounds, waxes, form oil and similar contaminations should be cleaned or removed prior to application. Surface temperature must be at least 10°C.

The surface should be free of holes, cracks, bubbles, segregations. This kind of surface faults should be repaired with Köster EP Mortar (epoxy based repair mortar) or with Köster Bond Paste RS (epoxy based grout mortar) before application.

If necessary surfaces need to be shot blasted, grinded or polished with mechanical surface treatment machines. After that the whole surface should be vacuum cleaned and cleaned from any dust.

Under any condition the adherence surface should have 1,5N/mm<sup>2</sup> and the humidity should be less than 4%. During application, ensure that the floor temperature is at least + 3°C above the specified dew point (see table for dew point).

### **Primer Preparation and Application:**

**For Concrete Surfaces:** First epoxy primer is applied to the surfaces where the surface is prepared. KÖSTER KB-Pox 002 should be used as primer. Application is done with roller. Consumption should be calculated as 0.3-0.5 kg / m<sup>2</sup> (low consumption on non-absorbent surfaces and high consumption on absorbent surfaces).

On very absorbent surfaces it may be necessary to apply two coats of primer.

Note 1: A visible epoxy layer must be formed on the finished surfaces. The layer should at no point contain voids, air bubbles or pores. The spaces and pores seen on highly absorbent surfaces

should be removed by applying a second layer.

Note 2: Polyurea should be applied within 12-24 hours after primer application.

### **Application of KÖSTER KB-Pur 570:**

Application must be sprayed with a Gama H30, Graco Reactor H-XP2 or similar high-pressure (2000- 2250 psi) sprayer with a hot application capacity (75-80°C). Contact our Technical Service for machine temperature and pressure settings and application instructions.

After surface preparation and primer application have been completed 2-4 passes to the floor and walls should be applied wet in wet. Application thickness should be at least 2 mm. The application thickness should be checked regularly by cutting sample pieces from the ground or by applying sample plates and measuring the thickness and reaching the minimum thickness at each point.

Thin parts or repairs should be made within 5 hours after application.

Surfaces should be protected from mechanical stresses for at least 24 hours.

Fresh surfaces should be protected from water, dew and other external factors, dust, dirt and solvents.

The dew point should be checked before and during application.

**Subsequent layers** – KÖSTER KB-Pur 570 is an aromatic pure polyurea waterproofing product and may change color over time as a result of contact with UV rays. Therefore, exposed coatings should be coated with a suitable topcoat.

KÖSTER product range includes single component and two component aliphatic polyurethane products suitable for use as topcoat, you can get help from our Technical Service for product selection.



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### **Considerations:**

Do not apply on wet and frozen surfaces. Necessary measures should be taken in areas where water or water vapor is observed from the negative side. Soil moisture and adherence should be checked and dew point should be determined before application. Mixing should not be done other than the specified mixing ratio. For mixing ratio max.  $\pm 2\%$  tolerance should be used.

### **Cleaning of Tools:**

Clean gun with DMF immediately after application. Cured material can only be removed mechanically.

### **Consumption:**

KÖSTER KB-Pur 570 for 1 mm thickness 1,0-1,1 kg/m<sup>2</sup>

Application should be made with minimum 2mm thickness.

### **Packaging:**

KÖSTER KB-Pur 570 425 kg SET

RESIN component > 200 kg drum (app. 200 lt)

ISO component > 225 kg drum (app. 200 lt)



### **Storage:**

Store in dry conditions and at room temperatures (15°C-25°C), in sealed original drums, shelf life is 6 months. Crystallization may occur at temperatures below 15°C.

### **Health and Safety:**

May cause irritation to skin, eyes and respiratory tract, do not breathe vapor.

Wear protective gloves, goggles and clothing.


Avoid contact with eyes and skin. In case of skin contact, wash with plenty of water and soap.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### **Determination of dew point table:**

Ambient temperature (°C)	Relative Humidity									
	50%	55%	60%	65%	70%	75%	80%	85%	90%	
6	-3,2	-2,1	-1,0	-0,1	0,9	1,8	2,8	3,7	4,5	
8	-1,6	-0,4	0,8	1,8	2,8	3,8	4,7	5,6	6,4	
10	0,1	1,3	2,6	3,7	4,7	5,6	6,7	7,6	8,4	
11	1,0	2,3	3,5	4,6	5,6	6,6	7,6	8,6	9,4	
12	1,9	3,2	4,5	5,6	6,6	7,6	8,6	9,6	10,4	
13	2,8	4,2	5,4	6,6	7,6	8,6	9,6	10,6	11,4	
14	3,7	5,1	6,4	7,5	8,6	9,6	10,6	11,5	12,4	
15	4,7	6,1	7,3	8,5	9,5	10,6	11,5	12,5	13,4	
16	5,6	7,0	8,3	9,5	10,5	11,6	12,5	13,5	14,4	
17	6,5	7,9	9,2	10,4	11,5	12,5	13,5	14,5	15,3	
18	7,4	8,8	10,2	11,4	12,4	13,5	14,5	15,4	16,3	
19	8,3	9,7	11,1	12,3	13,4	14,5	15,5	16,4	17,3	
20	9,3	10,7	12,0	13,3	14,4	15,4	16,4	17,4	18,3	
21	10,2	11,6	12,9	14,2	15,3	16,4	17,4	18,4	19,3	
22	11,1	12,5	13,8	15,2	16,3	17,4	18,4	19,4	20,3	
23	12,0	13,5	14,8	16,1	17,2	18,4	19,4	20,3	21,3	
24	12,9	14,4	15,7	17,0	18,2	19,3	20,3	21,3	22,3	
26	14,8	16,2	17,6	18,8	20,1	21,2	22,3	23,3	24,2	
28	16,6	18,1	19,5	20,8	22,0	23,2	24,2	25,2	26,2	
30	18,4	20	21,4	22,7	23,9	25,1	26,2	27,2	28,2	

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<b>KÖSTER YAPI KİMYASALLARI İNŞ. SAN. ve TİC. A.Ş.</b> <b>GEBKİM Kimya İhtisas OSB Atatürk Bulvarı</b> <b>No: 6 41455 DİLOVASI / KOCAELİ</b>  <b>16</b>	
<b>1020 - CPR - 040 051989 / DOP NO: 057</b>  EN 1504-2:2004  <b>KÖSTER KB-Pur 570</b> Pure Polyurea Spray Elastomer  Coating application (C) 2.2/5.1	
Permeability to water vapour	Class I
Capillary absorption and permeability to water	$W < 0,1 \text{ kg/m}^2 \cdot \text{h } 0,5$
Abrasion Resistance	$< 3000 \text{ mg}$
Resistance to Impact	Class III
Breakout Through Out the Experiment Adhesion Strength	Crack closure or flexible systems without traffic load $> 0,8 \text{ N/mm}^2 (0,5) \text{ b}$
Response to Fire (EN 13501-1)	E
Dangerous Materials	Materials 5.3 appropriate

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