



SOUPLETHANE 5 COR

Anticorrosion protection coating, based on a polyurea-urethane resin, solvent-free, presenting high chemical and mechanical resistance (Liquid Waterproofing System).

Application Fields

- ☐ Abrasion-resistant protective coating intended for the protection of structures in the presence of high chemical attack on any substrate (eg concrete, mortar, epoxy mortar, etc.).
- ☐ Protective coating for reservoirs and chemical storage tanks, hoppers, silos, chemical reactors and retentions.
- ☐ Corrosion protection in the chemical, pharmaceutical, agricultural and sewage / waste water treatment plants.
- ☐ Can be reinforced with 2D glass fabric to resist cracking of storage tanks and retentions.

Characteristics

Chemical Nature :	2-Component Polyurea-urethane resin (aromatic)	Mixing ratio :	Comp. A / Comp. B = 2 / 1 in volume
Composition :	Component A - polyol : Colored opaque liquid Component B – isocyanate : Transparent amber liquid	Density : (at 20°C)	Mixture A+B : 1.1 g / ml (DIN 53217 / EN ISO 2811)
Solvent-free	100 % solid content (ISO 1515)	Bisphenol A-free	
Colors :	Crème-Cream (Ivory, prox. Ral1015), gris-grey (prox. Ral 7040)		

Advantages

Excellent resistance to chemical agents (pH 1 to 14) <i>please refer to chemical resistance chart (Appendix)</i>	Solvent-free, Odor-free
Very good mechanical resistance	Bisphenol A-free
Mechanical shock resistance (tests CSTB)	
Thermal shock resistance: from -50°C to +120°C	Fast start-up time
Resistance to concrete cracking: bridging of concrete cracking of 4.9 mm	Easy application
No Bacteria Development	

Properties

Chemical resistance		Thermal resistance	
Corrosion resistance	pH from 1 to 14	Thermal shock resistance	from -50 °C to + 120°C
<i>please refer to chemical resistance chart (Appendix)</i>			
Mechanical properties			
Shore D Hardness	72 (ISO 868)	Tensile strength	22 MPa (EN ISO 5470-1)
Concrete adhesion	3.5 MPa (concrete failure) (NF EN 1542)	Elongation	65 %
Steel adhesion	7 MPa (NF EN 1542)	Compression strength	113 MPa
Salt spray resistance	2 000 hours (ASTM B117 ASTM D1654)	Chloride permeability	< 10 coulombs (ASTM C 1202)
Resistance to back pressure	1 MPa	Water permeability	No penetration (DIN 1048)

Packaging

33 kg	pails (Kit 1 pail A : 20L + 1 pail B : 10L)
66 kg	pails (Kit 2 pail A : 2 x 20L + 1 pail B : 20L)
660 kg	drums (Kit 2 drums A : 2 x 200L + 1 drum B : 200L)

Storage

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free)
Shelf life : 12 months

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company

KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France

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Implementation

Preparation of the mixture	☐ Thoroughly homogenize the two components - polyol (A) and isocyanate (B) before mixing ☐ Mix the mixture Comp A + Comp B with a mechanical stirrer for 60-120 seconds ☐ Then pour the product into a second container and resume mixing for 10 seconds. ☐ To minimize the air entrainment during mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpm), taking care to keep the agitator at the bottom of the bucket during its rotation.			
Application	Check the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity.			
Substrate temperature		-20°C min. / +70°C max.	Dew point : The substrate must be at + 3 ° C above the dew point to reduce the risk of condensation.	
Relative Humidity (RH)		< 95 %		
Roll or brush application	2-3 layers	Spraying through high-pressure 2-component airless pump		
Application with notched comb	1 main layer	Viscosity	Component A : 1 500 cps / Component B : 150 cps	
		Temperature	Component A : 35°C / Component B : 20°C	
		Pressure	180 / 200 bars	
Covering time	8 hours	Covering time	8h for flooring, 2 h for vertical applications	
Start-up time	24 h	Start-up time	24h	
Thickness : 2 to 5 mm (for more details, please refer to the chemical resistance chart at the Appendix)				
Pot life	Temperature	+ 10°C	+ 20°C	+ 30°C
	Pot life	~ 30 minutes	~ 20 minutes	~10 minutes
	The pot life decreases as the temperature and / or amount of prepared product increases.			
Covering time	☐ Before application of SOUPLETHANE 5 COR on KEMIPOX or PU AQUEUX primer			
	Temperature	+ 10°C	+ 20°C	+ 30°C
	Mini	24 hours	12 hours	8 hours
	Maxi	4 days	2 days	1 day
Drying / Start-up time	Temperature	+ 10°C	+ 20°C	+ 30°C
	Light loads	30 hours	24 hours	12 hours
	Full cure	15 days	9 days	7 days
Tools cleaning	Tools are cleaned with acetone or MEK immediately after use. In the cured state, the product can only be removed mechanically.			

These data are only indicative because the curing time varies according to the drying conditions (temperature and relative humidity in particular)

Qualifications

Decontaminatable Class 1 according to NF T 30-901 (C.E.A.)

HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)

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VISCOUS VERSION (THIXOTROPIC) : SOUPLETHANE 5 COR – THIXO

The viscous version of SOUPLETHANE 5 COR allows the roll application of 700 g/m² in one single layer.

Viscosity – Component A : 15 000 mPa.s (23°C)

Consumption : Up to 700g/m²

The other characteristics of the system remain unchanged.



Appendix

SOUPLETHANE COR (5 or 6)

TABLE OF CHEMICAL RESISTANCE

Chemical retentions
Flooring
Contact : 72 h

Storage tanks
Concrete/Steel
Permanent contact

Chemicals		Temperature		
		< 80°C	< 40°C	< 70°C
ACIDS	Concentration	Thickness	Thickness	Thickness
Hydrochloric acid	33 %	3 mm	3 mm	5 mm
Nitric acid	60 %	2 mm	3 mm	5 mm
Sulfuric acid	40 %	3 mm	3 mm	5 mm
Phosphoric acid	100 %	2 mm	3 mm	5 mm
Acetic acid	70 %	3 mm	3 mm	5 mm
Lactic acid	30 %	2 mm	3 mm	5 mm
All acids with pH >1		2 mm	3 mm	5 mm
All acids with pH <1		Contact test 72 h	Immersion 3 weeks	
BASES	Concentration	Thicknes	Thickness	Thickness
Sodium hydroxide	50 %	3 mm	5 mm	5 mm
Potassium hydroxide	50 %	2 mm	5 mm	5 mm
All bases with pH <13		2 mm	2 mm	5 mm
All bases with pH >13		Contact test 72 h	Immersion 3 weeks	
Hydrocarbons	Concentration	Thickness	Thickness	Thickness
Petrol	100 %	2 mm	3 mm	5 mm
Gas oil	100 %	2 mm	5 mm	5 mm
Aliphatic essence	100 %	2 mm	2 mm	5 mm
Kerosene	100 %	2 mm	2 mm	-----
aromatic Benzene, xylene	100 %	2 mm	-----	-----
CHLORIDES	Concentration	Thickness	Thickness	Thickness
Sodium salt	100 %	2 mm	3 mm	5 mm
Iron chloride	30 %	2 mm	3 mm	5 mm
Others		2 mm	3 mm	5 mm

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