SOUPLETHANE 6 COR

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

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)

Composition : Component A - polyol : Colored opaque liquid
Component B – isocyanate : Transparent amber liquid

Solvent-free 100 % solid content *(ISO 1515)*

Colors : Crème-Cream (Ivory, prox. Ral1015), gris-grey (prox. Ral 7040)

Mixing ratio : Comp. A / Comp. B = 2 / 1 in volume

Density : (at 20°C) Mixture A+B : 1.1 g / ml *(DIN 53217 / EN ISO 2811)*

Bisphenol A-free

Advantages

Excellent resistance to chemical agents (pH 1 to 14)
please refer to chemical resistance chart (Appendix)
Very good mechanical resistance
Mechanical shock resistance (tests CSTB)
Thermal shock resistance: from **-50°C** to **+120°C**
Resistance to concrete cracking: **bridging of concrete cracking of 4.9 mm**
No Bacteria Development

Solvent-free, Odor-free

Bisphenol A-free

Fast start-up time

Easy application

Properties

Chemical resistance		Thermal resistance	
Corrosion resistance	**pH from 1 to 14**	Thermal shock resistance	**from -50 °C to + 120°C**
please refer to chemical resistance chart (Appendix)			

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

KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France
Tel.: +33 (0)237 26 3356 • Fax: +33 (0)237 26 3358 • E-mail: info@kemica-coatings.com • www.kemica-coatings.com .

Implementation

Preparation of the mixture	Thoroughly homogenize the two components - polyol (A) and isocyanate (B) before mixing
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.	**Application / Ambient temperature** +10°C min. / +30°C max.
Relative Humidity (RH)	< 95 %	**Dew point :** The substrate must be at + 3 ° C above the dew point to reduce the risk of condensation.

Spraying through high-pressure 2-component airless pump

Viscosity	Comp. A : 1 500 cps / Comp. B : 150 cps	**Temperature**	Component A : 35°C / Component B : 20°C
Pressure		180 / 200 bars	
Covering time		immediately	
Start-up time		12h	

Thickness : 2 to 5 mm
application possible in one continuous layer of 5 mm if necessary
(for more details, please refer to the chemical resistance chart at the Appendix)

Pot life	Temperature		+ 20°C	
	Pot Life		~ 2 minutes	
	The pot life decreases as the temperature and / or amount of prepared product increases.			
Covering time	Before application of SOUPLETHANE 6N on KEMIPOX or PU AQUEUX			
	Temperature	+ 10°C	+ 20°C	+ 30°C
	Mini	24 hours	12 hours	8 hours
	Maxi	4 days	2 day	1 day
Drying / Start-up time	Temperature	+ 10°C	+ 20°C	+ 30°C
	Light loads	20 hours	12 hours	8 hours
	Full cure	14 days	7 days	5 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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Appendix

SOUPLETHANE COR (5 or 6)

TABLE OF CHEMICAL RESISTANCE

Chemical retentions
Flooring
Contact : 72 h

Storage tanks
Concrete/Steel
Permanent contact

		Temperature		
Chemicals		< 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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