



SOUPLETHANE 5

Two-component, solvent-free, polyurea-urethane resin providing a continuous and with no microporosities liquid membrane for waterproofing, anti-corrosion protection or floor coating, applicable manually (brush, roller) or by spraying with airless spraying equipment.

Technical Evaluation by CSTB (Avis Technique) N° AT : 12/15-1704_v1

Application Fields

SOUPLETHANE 5 can be used on every substrate : concrete, wood, metal, PS, asphalt, bituminous membrane, PVC

BUILDING		CIVIL ENGINEERING INDUSTRY - MARITIME	
Accessible or not terraces	Technical locals	Works of engineering	Pools, Fountains
Parking terraces	Intermediate floors	Bridges (concrete, wood, metal)	Swimming pools
Balconies, corridors	Elevator pits	Viaducts	Beaches of pools
Metallic roofs, Gutters	Foundations	Tunnels (extrados)	Buffers
On thermal insulation, PSE / PU	Bleachers	Pharmaceutical industry flooring	Ozonation tanks
			Agro-alimentary industrial flooring

Characteristics

Chemical Nature	2-Component Polyurea-urethane resin (aromatic)	Mixing ratio	Comp. A / Comp. B = 3 / 1 in volume
Composition	Component A - polyol : Colored opaque liquid Component B – isocyanate : Transparent amber liquid	Density (at 20°C)	Mixture A+B : 1.3 g / ml (DIN 53217 / EN ISO 2811)
Solvent-free	100 % solid content (ISO 1515)	Fire resistance	Bfl-S1
Flash point Component A	248 °C	Flash point Component B	212 °C
Colors : Crème-Cream (Ivory, prox. Ral1015), gris-grey (prox. Ral 7040), green, red – Others upon request			

Advantages

Excellent adhesion: 4 MPa on concrete	Solvent-free, Odor-free
Resistance to cracking concrete : 5 mm	Bisphenol A-free
Resistance to thermal shocks and hydrolysis : 90 ° C	Fast start-up time
Compression strength : > 110 MPa	Easy application
Excellent chemical resistance / no bacteria development	No chalking

Properties

Concrete adhesion	4 MPa (concrete failure) (NF EN 1542)	Shrinkage	0
Steel adhesion	9 MPa (NF EN 1542)	Tensile strength	20 MPa (NF EN ISO 527-3)
Service temperature (air)	- 50°C to + 160°C	Elongation	60 % (NF EN ISO 527-3)
Fire resistance	Bfl-S1 (NF EN 13501-1 + A1 :2013)	Shore A Hardness	95 (ISO 868)
Chemical resistance	1< pH<13	Compression strength	113 MPa
Resistance to Radon gas / compared to PVC	Attenuation Coeff. C1/C2 159 000 / 9	Chloride permeability	<10 coulombs (ASTM C 1202)
Resistance to back pressure	1 MPa	Service temperature (in immersion in water)	80°C
Chemical attack due to concrete	No effect	Water permeability	No penetration (DIN 1048)
Thermal shock resistance	- 50 °C to + 160°C	Salt spray resistance	2 000 hours (ASTM B117 / D1654)

Packaging	in kits
5 kg	Pre-dosed Kit
35 kg	(20 L component A + 7 L component B)
104 kg	(3 x 20 L component A + 1 x 20 L component B)
1 040 kg	(3 x 200 L component A + 1 x 200 L component B)

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

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Implementation

Preparation of the mixture	☐ Thoroughly homogenize the polyol (A) before mixing ☐ Mix the mixture Comp A + Comp B with a mechanical stirrer for 40 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 %.	Treatment of singular points : according to the technical assessment (Avis Technique)		
Roll or brush application	1 mm / layer (1,3 kg/m ²)	Spraying through high-pressure 2-component airless pump		
Application with notched comb	Up to 4 kg/m ²	Viscosity (20°C)	Comp. A : 3 800 cps / Comp. B : 150 cps	
		Temperature	Component A : 35°C / Component B : 20°C	
Thickness	1 to 3 mm	Pressure	180 / 200 bars	
Covering time at 20°C	mini 5 h / maxi 72h for flooring 1h vertically	Covering time	3 h	
Start-up time	24 h	Start-up time	24h	
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 on KEMIPOX or PU AQUEUX			
	Temperature	+ 10°C	+ 20°C	+ 30°C
	Mini	24 hours	12 hours	8 hours
	Maxi	4 days	2 days	1 days
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
These data are only indicative because the curing time varies according to the drying conditions (temperature and relative humidity in particular)				

Cleaning tools Tools are cleaned with acetone or MEK immediately after use. In the cured state, the product can only be removed mechanically.

- Substrates should not be under water pressure or condensation during the application and polymerization of SOUPLETHANE 5
- Protect SOUPLETHANE 5 from contact with moisture, condensation and water for 2 hours
- Incorrect treatment of substrate defects will reduce the life of the coating.
- Beware of the gas exchange that may be caused by a warming of the substrate before the total polymerization which may lead to a bubbling (blistering) phenomenon. It is recommended to work by down temperature.
- To avoid color differences, it is necessary to use a single lot number for each site.
- An exposure of the coating under UV may alter its color or appearance, but without impairing its mechanical performance.

Notes on the application / limits

Qualifications

Technical Evaluation (AVIS TECHNIQUE) - CSTB N° AT : 12/15-1704_v1
DTA N° 5.2/18-2615-V1 / ETE-13/0156
Fire resistance: Bfl-S1
European flooring standards : N°RSET -09-260138
HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)

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