SOUPLETHANE 5 COR FRB M1 N

NON-FLAMMABLE 2-component polyurea-urethane resin, solvent-free, for waterproofing, anticorrosion protection (concrete and metal) and protection against chemical attack (acid or base). Easily decontaminatable.

FIRE CLASSIFICATION FOLLOWING THE EUROPEAN STANDARD NF EN 13501-1 : B-s2, d0

Application Fields

SOUPLETHANE 5 COR FRB M1 is used on any substrate: steel, alloy, concrete, fiber concrete, plaster, wood, etc.

- Non-flammable coating for flooring, chemical retentions, concrete or steel tanks, pipes, various metal structures, tunnel walls.
- Non-flammable anti-corrosion protection in the chemical, pharmaceutical, agricultural and sewage treatment plants.

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 : 1.43 g / ml *(DIN 53217 / EN ISO 2811)*
Solvent-free	100% solid content *(ISO 1515)*		

Flash point component A > 200 °C **Flash point component B** 220 °C

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

Advantages

Non-flammable coating, Fire classification : B-s2, d0

- Excellent adhesion : 3 MPa on concrete / 9 MPa on metal
- Resistance to thermal shocks and to hydrolysis : 90°C
- Compression strength : > 110 MPa
- Excellent chemical resistance (pH range: 1 to 13)
- Solvent-free, Odor-free
- Fast start-up time
- Easy application
- No chalking

Properties

Concrete adhesion	**3 MPa** (concrete failure) *(NF EN 1542)*	Shrinkage	**0**
Steel adhesion	**9 MPa** *(NF EN 1542)*	Tensile strength	**22 MPa** *(NF EN ISO 527-3)*
Service temperature (air)	**- 20°C to + 100°C**	Elongation	**25 %** *(NF EN ISO 527-3)*
Service temperature (in immersion in water)	**80°C max**	Shore D Hardness	**72** *(ISO 868)*
Thermal shock resistance	**- 50 °C to + 120°C**	Chloride permeability	**<10 coulombs** *(ASTM C 1202)*
Compression strength	**113 MPa**	Water permeability	**No penetration** *(DIN 1048)*
Resistance to back pressure	**1 MPa**	Salt spray resistance	**2 000 hours** *(ASTM B117 / D1654)*
Chemical resistance **1< pH<13**			

Packaging	in kits
38.6 kg	(20 L component A + 7 L component B)
115.0 kg	(3 x 20 L component A + 1 x 20 L component B)
1 150.0 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

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 (for manual version)	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 %.	

Manual Version		**Machine Version (Spraying through high-pressure 2-component airless pump)**	
Pot life (20°C)	20 min	**Pot life (20°C)**	1.5 min
Roller or brush application	0.4 mm / layer (0,35 kg/m²)	**Viscosity (20°C)**	Comp. A : 6 000 cps / Comp. B : 150 cps
Application with notched comb	Up to 4 kg/m²	**Temperature**	Comp. A : 30-35°C / Comp. B : 20°C
Thickness	1 to 3 mm	**Pressure**	180 / 200 bars
Covering time (20°C)	mini 5 h / maxi 72h for flooring 1h vertically	**Covering time (20°C)**	3 h

Covering time

Before application of SOUPLETHANE 5 COR FRB M1 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 day

Pot Life

Manual Version

Temperature	+ 10°C	+ 20°C	+ 30°C
Pot-life	~ 25 minutes	~ 20 minutes	~12 minutes

The pot life decreases as the temperature and / or amount of prepared product increases.

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)

Tools cleaning

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

Notes sur l'application / limites

- Substrates should not be under water pressure or condensation during the application and polymerization of SOUPLETHANE 5 COR FRB M1
- Protect SOUPLETHANE 5 COR FRB M1 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.

Qualifications

FIRE CLASSIFICATION FOLLOWING THE EUROPEAN STANDARD NF EN 13501-1 : B-s2, d0 (CSTB, n° RA08-0460)
Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)

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 .