

CP 1008 POLYUREA

Description

Akfix CP 1008 is a two component, hand applied and solvent free polyurea based liquid waterproofing membrane. It creates a seamless, and highly durable waterproofing membrane with strong adhesion to many types of surfaces with high mechanical properties. It is specially developed for general waterproofing, protection, and sealing purposes.

Properties & Features

- Fast cure and service time
- Cold applied and self levelling
- Solvent free
- Monolithic – no laps, welds or seams
- Obtain large thickness in a single layer
- Easily applied with roller, notched trowel or spreader
- Excellent mechanical properties
- Excellent adhesion to most substrate
- Highly elastic membrane
- Thermoset – do not soften at high temperature
- Low temperature application

Fields of Application

Waterproofing and protection of:

- Walkable roofs
- Terraces, balconies and verandas
- Metal roofs
- Waterproofing indoor applications (wet room, kitchen and bathrooms)
- Tiles (under)
- Polyurethane insulation foams
- Asphalt membranes.

Product Information

Packacking	(A – 20kg), (B – 1,6kg)
Shelf Life	9 months
Storage Conditions	Store in cool and dry conditions between +10°C and +30°C

Technical Data

Liquid Form Properties	Unit	Method	A component	B component
Chemical Structure	-	-	Isocyanate Prepolymer	Polyamine mixture
Physical Condition	-	-	Liquid	Liquid
Viscosity (Brookfield)	cP	ASTM D2196-86 @ 25°C	5500-7000	400-450
Density	gr/cm ³	ASTM D1475 @ 25°C	1,16±0,03	1,19±0,03
Viscosity(mixture)	cP	ASTM D2196-86 @ 25°C		7500-8500
Density(mixture)	gr/cm ³	ASTM D1475 @ 25°C		1,17±0,03
Non volatile content	%	ISO 3251	100	100

Finished Product Properties	Unit	Method	Value
Final Product structure	-	-	Solid Elastomeric Membrane
Mix ratio	By weight	-	100:8 (A:B)
Pot life	(10°C) (25°C) (30°C)	Minute	60 45 30
Tack Free time	Minute	-	150
Open to Foot traffic	Hour	-	24
Full cure time	Day	-	5
Recoat time	Hour	-	4-12
Tensile strength at break	N/mm ²	ASTM D412	>7
Elongation	%	ASTM D412	>400
Hardness	Shore A	ASTM D2240	65
Hardness	Shore D	ASTM D2240	20
Adhesion Strength	N/mm ²	ASTM D4541	Concrete: ≥2,5
QUV Accelerated Weathering Test	-	ASTM G53	No cracking and swelling
Substrate and ambient temperature	°C	-	5-35

Directions for Use

A. Weather Conditions

The air temperature should be between 5°C and 35°C. The relative humidity must be less than 80%. If the temperature of the product is higher than 30°C at the time of mixing the two components, there is a risk that the working time will be too short. During application, the temperature of the support must be at least 3°C above the dew point to avoid condensation on the surface.

B. Surface Preparation

The preparation of the substrate and the use of the appropriate primer are of paramount importance. The concrete should be completely cured. All surfaces to which is applied should be sound, clean and dry and free from oil or grease, loose particles and any other substances which may impair adhesion. Any laitance present on the surface must be removed mechanically. Release oil and other contaminants which may impair adhesion must be removed prior to application of the primer. Surface irregularities should also be filled with appropriate material. Priming the substrate is critical to ensure a proper seal and preventing outgassing. Apply the suitable primer based on the concrete substrate moisture level. Prime 80, Primer S80 and Primer 95 could be used as primer before cold polyurea application.

Metal substrates should be prepared using sand-blasting, in order to improve the surface's mechanical fixation properties. Check the seals and overlaps and where necessary seal with appropriate filler product. Ceramic substrates should not have empty joints or loose elements or parts. These should be filled with a filling material. For non-porous surfaces use the water based epoxy primer Primer W80.

C. Polyurea Application

Akfix CP 1008 is supplied in working packs which are pre-packaged in the exact ratio. Partial mixtures are not recommended. Before mixing, precondition both the A and B components to a temperature of approximately 20°C. Open the container of component A and stir it mechanically at low speed to prevent air entrainment. The homogenization of component A should be done in about 2 minutes. After that, stir B component at low speed for one minute. Then pour component B into the container of component A and mix with a mechanical drill and paddle at a low speed (approx. 300 rpm) for at least 3 minutes until homogenization. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer bladed fully submersed in the coating to avoid introducing air bubbles. Over mixing must be avoided.

The mixed resin is poured onto the prepared support and quickly spread with a notched trowel or a spreader. It is advisable to wear spiked shoes and use a spiked roller to achieve a smooth and regular surface. The curing time of the material is influenced by the ambient, material and substrate temperatures. After mixing use entirely the AB mixture. Usually, needed thickness can be obtained in one single coat. If necessary, a second coat can be applied up to 12 hours after the first layer gets touch dry, depending on environmental conditions.

Top Coat Application: Akfix CP 1008 has good resistance to UV and weather degradation to be exposed outdoor applications. Aromatic polyureas undergo change of color under sunlight. This change does not affect its mechanical properties. In case of demand for long term color stability aliphatic top coat could be applied for additional UV protection.

Color

Standard color is Grey (RAL 7040). Available other colors on request.

Consumption

Material consumption depends on the state of the support and the desired thickness. Recommended standard layer thickness is 1,5- 2mm. Consumption of CP 1008 is 1.2 kg/m²/mm. Consumption may vary according to surface permeability, weather conditions, and the technique of application.

Cleaning

After usage, immediately clean all tools and application equipment with a suitable cleaner solvent. Material that has been hardened or cured can only be cleaned mechanically.

Safety

Harmful by inhalation. Irritating to eyes, respiratory system and skin. Do not breathe spray/vapor. Wear suitable protective clothing and gloves. Use only in well-ventilated areas. Pressurized container. Keep away from direct sunlight and do not expose temperatures over 50°C. Do not pierce or burn, even after use. Keep away from sources of ignition, no smoking. Keep out of the reach of children.

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