AKFIX POLYUREA CR 300

1 – DESCRIPTION

AKFIX POLYUREA CR 300 fast curing, two-component, 100% solid, flexible, hybrid polyurea waterproofing system. It can be applied for protecting and coating of various surfaces. The product has been specially developed for use in repairs and small applications. It can be applied to the surfaces with standard pneumatic cartridge gun with a pressure of 6-8 bars. It can be easily applied in complex and complex details geometrically.

2 – PROPERTIES

- Economical Polyurea system
- Easy and mobil application
- Aromatic
- %100 solid content
- VOC free, odourless
- Fast cure and fast service
- Seamless application
- Can be applied desired thickness
- Excellent adhesion on concrete, metal, wood etc.
- Can be applied on horizonal and vertical application
- Excellent resistant to weather conditions

3 – APPLICATIONS

- Repairs
- Old coatings that require repair
- In applications of areas smaller than 20m2
- Application in hard to reach areas with hot spraying
- Roofs
- In balconies
- Equipment coatings that require structural protection
- Vehicle body coatings
- Metal surface coatings

4 – INSTRUCTIONS

Substrate Preparation

- Surface and ambient temperature must be min. 5 C° max. 35 C°.
- Surface moisture content should be maximum 4% for the surfaces where standard epoxy primer (Akfix Primer S80) will be applied and maximum 6% for the surfaces where moisture tolerant epoxy primer (Akfix Primer 80) will be applied.
- Be aware of condensation; the substrate must be at least 3 °C above dew point to reduce the risk of condensation of the coating.
- Relative air humidity for application should be lower than 85%. Prior to application, confirm substrate moisture content, relative air humidity and dew point.
- Before the application fresh concrete should be cured for 28 days.
- The above conditions are valid for both primer and polyurea application.

Preparation of the Primer

- A and B components should be thoroughly mixed for 3-4 minutes in order to achieve a homogenous mix using a low speed electric stirrer (~ 300 - 400 rpm/min) or other suitable equipment until a homogenous mixture has been achieved.
- Mixing should not be done at high speed for a long time in order to prevent formation of air bubbles.
- Prepared primer mixture is applied to the surface by brush, roller or airless spray machines.
- While the primer is still wet, it is recommended to sprinkle the surface with 0.3-0.7 mm silica sand to increase the adhesion strength of the polyurea.

Polyurea Application

- Before starting the application, heat the cartridge until it reaches room temperature to ensure application is homogeneous.
- Remove the cartridge cover,
- Attach the mixer to the cartridge,
- Put the cartridge in the gun,
- Open the air connection
- Spray the product into waste until a homogeneous mixture is formed. (Avoid using the first 20 ml). Then you can apply the product.
- After you pull your hand from the trigger of the gun, the product in the mixer starts to gel after 3 seconds. If this happens, replace the mixer and continue applying.

5- PACKAGING

750:750 ml (2K Cartridge)

6- STORAGE AND SHELF LIFE

Store the product in a ventilated place, away from direct sunlight and between 5 ° C and 25 ° C. When the product is opened, it should be consumed within 1 month. Shelf life of the unopened original packaging is 9 months from manufacturing date.

7- TECHNICAL PROPERTIES

Component Properties

	UNIT	METHOD	MDI PREPOLYMER (A)	AMINE RESIN (B)
Density (25°C)	gr/cm^3	ASTM D 1217	1,11±0,03	1,02±0,02
Viscosity (25°C)	mPa.s	ASTM D 4878	700-800	700-800

Process Properties

	UNIT	VALUE
Mixing Ratio	By Volume	A=100 B=100
	By Weight	A= 110 B= 100
Application Temp. (Product)	°C	A: 25-35 B: 25-35
Application Temp. (Air)	°C	A: 5-40 B: 5-40
Spray Pressure (bar)	Bar	A: 7-10 B: 7-10

Physical Properties

	METHOD	VALUE
Chemical Base		A: MDI Prepolymer B: Amine Resin
Solid Content (%)	ASTM D2697	100
Gel Time (sec)	--	25-30
Tack Free Time (sec)	--	50-70
Recoat Time (h)		0-12
Full Cure Time (h)	--	48
Density (gr/cm^3)	ASTM D792	1,0-1,03
Tensile Strength (MPa)	ASTM D638	≥10
Elongation (%)	ASTM D638	≥300
Hardness (Shore A)	ASTM D2240	90
Pull-off Strength (N/mm^2)	ASTM D4541	Concrete: ≥2 Steel: ≥6

8- RESTRICTIONS

- ***AKFIX POLYUREA CR 300*** A component contains isocyanates and component B corrosive polyamines. Follow the instructions in MSDS form before or after use or when a problem is encountered.
- Personal protective equipment and full face mask with appropriate filter should be used during application.
- There must be sufficient air circulation in the application area.

9- SAFETY

Personal protective equipment and full face mask with appropriate filter should be used during application. Refer to SDS sheet for detailed information prior to use.