SUFFIX POLYUREA PR

Pure Polyurea Based, Two Component, Fast Curing Waterproofing Material

Description of Product

SUFFIX POLYUREA PR is a two-component, pure polyurea system that does not contain solvents and plasticizers and consists of 100% solids. It is applied by hot spraying technique at high pressure, using application machines designed for two-component products.

SUFFIX POLYUREA PR is an elastic waterproofing product with high mechanical and chemical resistance. It adheres very well to concrete, metal and mineral surfaces. It dries quickly, service time is short. It does not create air bubbles on properly prepared and primed floors.

Areas of Use

On roofs, balconies and terraces; In green roof systems; swimming pools, water tanks; on car park roofs; in steel and concrete pipes; It is used in underground structures.

Advantages

It can be used on many surfaces with the use of the correct primer. It is odorless when used without primer on carbon or low carbon steel surfaces and when the correct surface profile is made (75-100 micron surface sanding). It can be used on horizontal and vertical surfaces. It creates a monolithic, joint-free surface. Its application and the surface becoming ready for use are very fast. It is suitable for continuous water contact. It is flexible and resistant to underground chemicals. It maintains its elasticity up to -45°C. It is thermoset. It does not soften at high temperatures. It has ASTM G160-12 certification that it does not produce microorganisms. It has a plant root resistance certificate according to CEN/TSE 14416 standard. It is resistant to chemicals.

Physical Properties

Quality (23°C, 50% RH)	Value	Standard & Method
Appearance	A Component: Honey Color, Liquid B Component: Grey, Liquid	-
Viscosity	A Component: 750 ± 100 B Component: 500 ± 50	EN ISO 2555
Density (gr/cm^3)	A Component: 1,00 ± 0,05 B Component: 1,10 ± 0,05	EN ISO 2811 - 1
Solid Content (%Wt)	A Component: 100 B Component: 100	EN ISO 3251

Technical Properties After Application and Cure

Quality (23°C, 50% RH)	Value	Standard & Method
Application Thickness (mm)	2	-
Gelling Time (seconds)	3 - 5	Surface control after spray application
Touch Dry (seconds)	60 - 90	-50% RH at 23°C
Full Curing (days)	7	

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POLYUREA & POLYURETHANE & EPOXY SYSTEMS

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Mechanical Properties

Quality (23°C, 50% RH, 7 Days)	Value	Standard & Method
Elongation at Break (%)	> 400	EN ISO 527 ASTM D 412
Breaking Strength	> 50	EN ISO 527 ASTM D 412
Tensile Strength (N/mm^2)	> 18	EN ISO 527 ASTM D 412
Adhesion Strength (N/mm^2)	> 2	EN 1542 ASTM D 4541
Surface Hardness (Shore A)	> 93	EN ISO 868 ASTM D 2240

Selection of Primer

Highly absorbent surfaces such as concrete, cement screed or wood; Primer application can be started after being previously saturated with SUFFIX PRIMER PUR1K, SUFFIX PRIMER PUR 2K, SUFFIX PRIMER EP, SUFFIX PUR 1K TRANS.

Application Information - Surface Preparation

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The surfaces to be applied must be dry and clean. Concrete and mold residues mechanically; Oil, grease, fuel and paraffin waste should be cleaned using chemical solvents. There should be no roughness, pits or cracks on the surfaces to be applied. Such damaged and unstable surfaces must be repaired and corrected using appropriate products. If necessary, the floor should be overhauled with grinding machines or diamond-tipped machines. After these procedures, the surface should be cleaned of dust with industrial vacuum devices. The prepared surface should be primed with a suitable primer. On very absorbent concrete surfaces, 2 coats of primer may be required.

The upper surface adhesion of the subfloor must meet an average of 1.5 N/mm^2 and the compressive strength must meet a minimum of 25 N/mm^2. During application, care should be taken to ensure that the ground temperature is above minimum +10°C. Application thickness should be minimum 2 mm. It is important to check that the material is applied in equal amounts throughout the entire applied area and that the thickness is measured at certain intervals to ensure the most ideal application. Weak points should be reviewed and all operations such as finishing applications and repairs should be completed within 4 hours. Care should be taken to protect the applied surfaces (such as water, dew, dust) for at least 24 hours. In places that will be constantly exposed to UV, it should be covered with a single layer of SUFFIX PU TC aliphatic-based polyurethane.

Application

SUFFIX POLYUREA PR is applied by spraying with special application machines with the values specified in the table below.

	A Component	B Component
Mixing Ratio (By Volume)	100	100
Process Temperature, °C	70 - 80	70 - 80
Process Pressure, bar	150 - 200	150 - 200

Storing and Shelf Life

SUFFIX POLYUREA PR product can be stored for 9 months from the date of production at temperatures between +5°C and 25°C, provided that the containers are unopened and protected from direct sunlight and risk of freezing.

Packing

Sets of 425 kg with component A (resin) and component B (hardener) proportioned

Consumption

2,0 - 2,2 kg/m^2

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Warnings

No other materials should be added to the SUFFIX POLYUREA PR product. Opened packages should be finished completely and not left unfinished. Do not thin with any thinner. After curing, SUFFIX POLYUREA PR is completely healthy.

Safety Precautions

Component A of SUFFIX POLYUREA PR contains isocyanate. You should not smoke during application and work in well-ventilated environments, away from naked flames. It should not be forgotten that solvents are heavier than air and therefore will circulate on the ground. During application, work clothes, protective gloves, glasses and masks that comply with occupational health rules should be used. Due to the irritating effects of the unmolded product, the components should not be contacted with skin and eyes. In case of contact, it should be washed with plenty of water and soap. If swallowed, consult a doctor immediately. For detailed information, please refer to the Safety Data Sheet (MSDS) or contact our technical units. Keep out of reach of children.

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