

MixGUARD® PolyU4

Fluid applied Aliphatic Polyurethane waterproofing system

MixGUARD® PolyU4 is a multi-component; modified polyurethane multi-layer premium performance fluid applied waterproofing system with high elasticity, durability and has a high level of resistance to UV rays, atmospheric elements, frost, rainfall etc. It is suitable to use in highly exposed conditions for both industrial and residential roof terraces.

MixGUARD® PolyU4 system components are based on pure elastomeric hydrophobic polyurethane modified viscous resins, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties. MixGUARD® PolyU4 film cures to form a seamless membrane by reaction with ground and air moisture

Appropriation

Highly recommended apply as heavy duty multilayer waterproofing for industrial and residential type of roofs – concrete, masonry, metal, asbestos, old Bitumen felts, Asphalt felts, EPDM and PVC membranes and old Acrylic coatings etc.

Water tight protection of Concrete constructions where more flexibility and stability is required like Bridge-Decks, Tunnels, Stadium Stands, Car Parks, Planter Boxes,

Characteristics

- Highly durable Waterproof membrane
- Highly capable to bridge structural cracks
- Anti-algal and anti-fungal
- Suitable for pedestrian traffic
- Non-toxic – breathable and washable
- Excellent adhesion to substrate
- Coal Tar free
- Non Torch application

Technical Data & Properties

Property	Data	Test method
Physical Appearance	Grey Seamless joint free membrane	
Color	Translucent Clear / Light Grey / Dark Grey compounds	
Density	1.25gm/cc±2%	
Elongation at break	600%	ASTM D 638
Tensile strength	>1.5N/mm ²	ASTM D 412
Tensile strength reinforced with mesh	>8.0N/mm ²	ASTM D 412
Adhesion to substrate	>1.5N/mm ²	ASTM D 4541
Water penetration	No leak at 2m water column (72Hrs)	DIN 1048
Water vapor transmission	19g/Sq. m/day	ASTM E96
Shore A Hardness	65	ASTM D 2240
Crack bridging	No cracks up to 2mm in 2000 microns D	ASTM C 836
Solar reflectance (SR)	94% (white color)	ASTM E903-96
UV Accelerated aging	No significant changes	EOT TR-010
System consumption	2000 gm./Sq. m	
Application temperature	5°C to 50°C with RH <60%	
Touch dry / rain stability	4 hrs. at 25°C	
Recoatable	6 to 10hrs. at 25°C	
Full cure	7 days	

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Product Management

Surface preparation: Thorough surface preparation is essential for optimum finish and durability of system. The substrate to receive base primer need to be completely free from contaminants which may badly affect the adhesion. Concrete or masonry screed substrates shall be at least 28 days old and the moisture content should not be more than 5%. Ideal Substrate compressive strength should be at least 15N/mm² and bond strength at least 1.5N/mm². Old loose coatings, dead mortars, dirt, fats, oils, organic substances and need to be removed by grinding or any other mechanical scarifying. Possible surface undulations, Irregularities, shutter bleedings etc. need to be leveled or smoothed by grinding. Any loose surface pieces and grinding dust must be removed with air blower

Strictly do not wash the surface with water at the stage of base primer application. In case any such water jetting is required, allow the substrate to sufficient dry to reach the substrate moisture level less than 5%

Blow holes in concrete substrates shall be filled with Epoxy putty. Surface cracks and cold joints must be widened and filled with Polyurethane sealant and building joints must be treated as per standard expansion / construction joint sealing practice

Not: Refer details application methodology for various surfaces

Mixing: Stir the compound well to get a homogeneous mix before applying

System Application procedure

MixGUARD PolyU4 components can be applied by brush, roller or air less spray at a total consumption of 2000gm/Sqm. Apply a base surface stabilizing primer with MixPRIME PU200 at 0.250L/Sq. m in single spread and a base elastomeric coat with MixGUARD Poly500 – Fluid applied elastomeric polyurethane intermediate waterproof coating at 0.800Kg/Sq.m and allows 6 to 8 hours for curing. Any critical areas shall be embedded with Fiber mesh at this stage and apply top coating with MixGUARD Poly700 – Hydrophobic Polyurethane high build coating at 0.800Kg/Sq. m followed by a top stability protective coat with MixGUARD ELASTOP-AL at 0.150Kg/Sq. m and allow the system for a complete curing

It is recommended to embedded with MixMAT GFM50/70 reinforcement mesh in between primer and intermediate layer to obtain higher tensile strength

Cleaning: Immediately clean the tools with thinner or solvent-100

Packing

MixGUARD PolyU4 components are available in 5/10/20 kg packs

Storage

MixGUARD PolyU4 components shall be stored in cool, dry and shaded conditions. Shelf life is 12 months when stored under cover, out of direct sunlight, protected from extreme temperatures and humidity as per manufacturer's guidelines. In extreme tropical climate, the product shall be stored in cooled ambience. Excessive humidity and over exposure will result in the reduction of shelf life

Health & Safety

MixGUARD PolyU4 contains no hazardous substance. As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles shall be worn whilst handling. Wearing long sleeve overall, safety shoes and face mask is recommended for maximum safety. Reseal all

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containers after use and ensure the product is stored as instructed on the safety section of the labeling. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately. For more details, please refer to the MSDS released on each product

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Technical information given in this data sheet is true and exact to the best of our knowledge, laboratory upshot and hands- onapplication. The data sheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambiance. Climatic disparity in temperature, humidity, etc... and porosity of substrate may impinge on the values.

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