ELASTAKOTE 100

Eco-friendly Liquid-Applied Waterproofing Membrane for Roofs, Walls and Concrete

PRODUCT DESCRIPTION

SUPERSHIELD ELASTAKOTE 100 is a cold-applied, one-component, waterborne, liquid-applied waterproofing membrane based on modified polyurethane that is easily applied to form a resilient barrier over concrete and masonry roofs and walls. SUPERSHIELD ELASTAKOTE 100 will waterproof the substrate, protect it from weather and atmospheric degradation, and also act as a cool roof coating owing to its reflective properties. ELASTAKOTE 100 will remain elastic and will bridge and seal hairline cracks. SUPERSHIELD ELASTAKOTE 100 is based on innovative SUPERSHIELD PUMO (Polyurethane Modified) Technology that is developed based on the modification of aliphatic polyurethane dispersion with excellent UV resistance and does not require any top coat.

SUPERSHIELD PUMO TECHNOLOGY

The PUMO TECHNOLOGY from SUPERSHIELD enables long-chain polyurethane macromolecules to be incorporated in a water medium, forming stable dispersion. SUPERSHIELD PUMO TECHNOLOGY combines the high performance of the polyurethane dispersion with the application ease of a one-component water-based coating in an ecological, low-VOC, environmentally friendly product.

RECOMMENDED USES

- Architectural and protective coatings for bridges, flyovers, tunnels, and other infrastructure
- Exposed roof waterproofing solutions in both new construction and refurbishment projects
- Exposed roofs with many details and complex geometry when accessibility is limited
- Cost-efficient life cycle extension of failing exposed roofs
- Reflective coatings to enhance energy efficiency by reducing cooling costs
- Side walls
- Slope roofs
- Parapet walls
- Protection of polyurethane foam insulation

Substrates: cementitious, brick, stone, metal, and existing bituminous membranes

FEATURES AND BENEFITS

- One-component, water-based, and VOC-compliant
- Excellent weather, UV light, and water resistance
- Forms a fully bonded, seamless membrane without joints
- Excellent adhesion to most building materials
- Flexible coating that accommodates substrate movements and bridges cracks
- Water vapor permeable
- The waterproofed surface can take light foot traffic
- Provides high solar reflectance

TECHNICAL DATA

Performance Characteristics

TEST NAME	TEST METHOD	PERFORMANCE
Water Permeability	EN 1062-6	> SD 50m
Permeability to water vapour	EN ISO 7783-1,2	Class I SD< 5m
Solid Content	ASTM 2369	70.04
Elongation at Break	ASTM D412	>450%
Tensile Strength	ASTM D412	>7 N/mm^2
Solar Reflectance	ASTM E 903-96	91%
Capillary Absorption and Permeability to water	EN 1062-3	W < 0.1
Strength of Adhesion to indirect traction	EN 1542	≥ 0.8 N/mm^2
Thermogravimetry	EN ISO 11358	+5% of reference with respect to loss of mass @ 600°c
Infrared spectrum	EN 1767	Position and relative intensities of the main absorption band matches with reference

APPLICATION GUIDELINES

Surface Preparation

Careful surface preparation is essential for optimum finish and durability. The substrate to be applied with SUPERSHIELD ELASTAKOTE 100 needs to be clean, dry, and sound, free of any contamination that may harmfully affect the adhesion of the membrane. The maximum moisture content should not exceed 8%. The substrate's compressive strength should be at least 25 MPa, and its cohesive bond strength should be at least 1.5 MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, oils, organic substances, and dust need to be removed by appropriate methods. Possible surface irregularities need to be smoothed. Any loose surface pieces and grinding dust need to be thoroughly removed. Repairs to the substrate, filling of joints, honeycombs, and voids, and surface leveling must be carried out using the appropriate SUPERSHIELD products.Contact SUPERSHIELD for further information.

Consumption

1 - 1.5 kg/m2 applied in two or three layers This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, and application methods can alter consumption.

Priming

For prime absorbent and brittle surfaces like concrete, cement screed, mortar, plaster, and wood, prime with SUPERSHIELD ELASTAKOTE 100 diluted with 10% to 20% clean water primer. For very brittle surfaces and/or demanding applications, prime with Supershield Wapprime and allow the primer coat to cure according to its technical specifications.

Application

Stir well before using. Pour SUPERSHIELD ELASTAKOTE 100 onto the prepared or primed surface and lay it out by roller or brush until all surfaces are covered. You can also use airless spray, allowing a considerable saving in manpower.

After 6 to 24 hours, apply another layer of SUPERSHIELD ELASTAKOTE 100. For demanding applications and better waterproofing results, apply a third layer of SUPERSHIELD ELASTAKOTE 100. Reinforce always with Supershield Refab at problem areas, like wall floor connections, chimneys, pipes, waterspouts, etc. To do that, apply to the still-wet SUPERSHIELD ELASTAKOTE 100 a correctly cut piece of Supershield Refab, press it to soak, and saturate again with enough SUPERSHIELD ELASTAKOTE 100. Do not apply the SUPERSHIELD ELASTAKOTE 100 over 0.5 mm of thickness (dry film) per layer. For detailed application instructions with the SUPERSHIELD REFAB, contact SUPERSHIELD.

Curing

The SUPERSHIELD ELASTAKOTE 100 coating should be air-cured for a minimum of 4 to 6 days and protected from water or rain for a minimum of 18 hours.

LIMITATIONS

- Do not apply the SUPERSHIELD ELASTAKOTE 100 in negative (deg C) temperatures or when rain or frost is imminent in the next 48 hours. For best results, the temperature during application and curing should be between 5°C and 35°C. Low temperatures retard curing, while high temperatures speed up curing. High humidity may affect the final finish. Do not apply SUPERSHIELD ELASTAKOTE 100 to substrates that have rising moisture. Always apply during periods of falling ambient and substrate temperatures. If applied during rising temperatures, pinholes may occur from rising and expanding air.
- Ensure that each coat of SUPERSHIELD ELASTAKOTE 100 is dry and the surface is free of pin holes before applying further coats.
- Ensure that the applied SUPERSHIELD ELASTAKOTE 100 has sufficient curing time before

any such inclement weather is expected.

- Do not allow temporary ponding or moisture (dew, condensation, etc.) to remain between coats on any horizontal surfaces or until the final coating has cured. Brush or mop surface water away during this time.
- It is recommended to carry out adhesion and compatibility tests with the primer before applying the following coats.
- SUPERSHIELD ELASTAKOTE 100 should not be applied on roofs subject to long-term ponding water, especially with subsequent periods of frost. In cold climatic zones, for roofing structures with a pitch of less than 3%, appropriate drainage measures must be considered.
- SUPERSHIELD ELASTAKOTE 100 should not be subjected to permanent water immersion.
- While SUPERSHIELD ELASTAKOTE 100 is resistant to most commonly encountered atmospheric pollutants, proprietary cleaning solutions, and environmental spoilage, the suitability of the product for use in applications with increased chemical resistance requirements should first be established in consultation with SUPERSHIELD.

HEALTH AND SAFETY

SUPERSHIELD ELASTAKOTE 100 contains chemicals that may cause skin irritation. For personal precaution, protective gloves and goggles are recommended to be worn during the handling of this product. If the product gets in contact with the eyes, flush immediately with clean water and seek medical assistance if symptoms persist.

STORAGE

SUPERSHIELD ELASTAKOTE 100 should be stored in dry and cool rooms in their original, unopened containers for up to 18 months. Protect the material against frost and direct sunlight.

Storage temperature: 5°C–30°C.

PACKAGING

25 kg pails.

WARRANTY

Supershield warrants that its products will be free from material defects and will comply with the specifications provided in their respective technical data sheets. If any product is proven to be defective, Supershield's liability will be limited to the replacement of the product. Supershield will not be liable for any incidental or consequential damages. No other warranties, express or implied, shall apply, including warranties of merchantability or fitness for a particular purpose. It is the user's responsibility to determine the suitability of the product for their intended use and to assume all risks and liabilities associated with its application. Supershield reserves the right to alter the properties of its products without prior notice.