

MONNELI ELASTOTHANE WP1

Elastomeric Single Component Polyurethane Waterproofing Membrane

Product Description

A single component moisture-cured elastomeric polyurethane membrane coating. It is liquid applied, user friendly, gives long lasting maintenance and free waterproofing protection to concrete and steel structures.

Uses

ELASTOTHANE WP1 is designed to waterproof most applications within the building and construction industry including:

Tiled or covered areas:

- Shower recess and wet areas (floor & upturns)
- Decks, balconies, terraces and podiums
- Retaining walls
- Planters and landscaped areas
- Structural slabs
- Water retaining structures, fountains & swimming pools

Exposed areas prior to application of surface wearing toppings

- Roofs
- Decks
- Terraces, balconies

Building substrates including:

- Concrete
- Cement
- Render
- Brick and block work
- Plaster board
- Masonry
- Steel and timber

Advantages

- Creates a seamless, tough & flexible elastomeric membrane when fully cured.
- Excellent chemical resistance
- Resistant to standing water
- Excellent adhesion to various substrates with suitable primer
- Excellent resistance to water and carbon dioxide permeability
- High water vapour permeability
- Free of pitch or bitumen modification
- Ready to use – no measuring and mixing required
- Excellent workability
- Reaches sufficient cure generally in 24 hours allowing for toppings or coverings to be placed
- Easy to repair

Instructions for Use

Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Oil, grease, varnishes, rust, dust and mould on metal surfaces shall be removed by wire or stiff brushing and grit blasting then wiped with SOLVENTE 10 prior to priming.

New concrete or cementitious surfaces should be at least 28 days old and have moisture content not exceeding 5%. Old or existing surface should be refurbished mechanically to ensure clear and sound substrate.

Crack Treatment

Shrinkages and non-moving structural cracks less than 1.0mm shall be filled with a pre-treatment strip of ELASTOTHANE WP1 of 1.0mm thick extended to 75 mm on both sides of the crack.

Voids and honeycombs shall be patched with COLMEF's range of repair products allowing the area to cure before applying the membrane.

Right Angle Bends

All right angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using BETOCEM FIBER, a Fiber reinforced shrinkage controlled mortar for concrete repair to the water saturated cured surface.

All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of ELASTOTHANE WP1 extending 150mm on both sides of the coving.

Movement Joints

Expansion and movement joints should be sealed with ELASTOSEAL PU25, a Polyurethane sealant. When cured a stripped layer ELASTOTHANE WP1, 200mm wide shall be applied and centered over all the sealed joints. Allow to cure before the general application.

While the membrane is still wet cover with a correct cut strip of fiber mesh and press it to soak. Saturate the fiber mesh with another coat of ELASTOTHANE WP1 until it is fully covered. Allow curing before applying further coats of the waterproofing membrane.

Priming

Highly porous concrete or concrete containing micro-silica will be primed using PRIMER PU, a solvent based epoxy primer. The primer shall be applied at a rate of 6-8m²/L.

The primer should be left to achieve a tack-free condition for 8 -12 hours before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

ELASTOTHANE WP1 can be applied directly over COLMEFOAM HD, a polyurethane spray foam after thorough surface preparation without the need of primer.

Mixing

ELASTOTHANE WP1 should be stirred before use until a uniform color and consistency is achieved. Product is ready for use.

Application

ELASTOTHANE WP1 shall be applied by brush, roller, trowel or airless spray in 2 coats to achieve a minimum dry film thickness of 1.0 mm for each coat. The two coats must be applied at right angles to one another.

A layer of ARMOFLEX, a fiber glass mesh should be embedded between the two ELASTOTHANE WP1 coats over pipe culverts, floor drains, corner joints and floor / wall junctions.

The final wet coat of ELASTOTHANE WP1 shall be spread with sufficient clean silica and before applying tile adhesives. Tiling or finished floor installations should be carried out as soon as possible after full cure of membrane is established.

Cleaning

Tools and equipment used for ELASTOTHANE WP1 should be cleaned with SOLVENTE 10 directly after use. Hardened material can only be removed mechanically.

Recommendations

- Don't apply the product with imminent rain, or on humid support
- During application, relative humidity must be below 95% & substrate temperature at least +3°C above dew point temperature
- Moisture content of substrate should be maximum 4% by weight
- ELASTOTHANE WP1 should not be applied on surfaces with a risk of rising dampness
- When applying over existing coating, compatibility & adhesion testing is recommended
- The minimum application life for the opened pack is up to 48 hours if stored in closed and dry container
- Water test should be run after the membrane is fully cured
- During the peak temperature of the day in the summer season, working area should be covered to prevent direct sun effects

- Mockups to verify application methods (substrate condition are highly recommended)

Technical Data

Properties	Results
Appearance	Liquid
Color	Grey, tan
Solid content	85%
Density at 25°C	1.3 kg/L
Elongation (ASTM D412)	Approx 400%
Tear resistance (ASTM D624)	>6.0 N/mm
Tensile strength (ASTM D412)	>1.6 N/mm ²
Tensile adhesion strength (ASTM D 4541)	>1.5 N/mm ²
Water vapor transmission (ASTM E96)	0.2 g/h.m ²
Crack bridging (ASTM C836)	No cracking, splitting pinholes or any other type of failure was observe at 3.2 mm
Tack free time at 25°C	12 hours
Final curing time at 25°C	2 days at 1.0mm thickness
Swelling in water at 3 days	Nil
Shore A hardness	50 ± 5

All values are subject to 5-10 % tolerance

Consumption

0.85 m²/Liter at 1mm thickness

Packaging

The product supplied into sealed metallic containers of 4 and 15 Liters.

Storage

Keep the product in dry and sheltered place at temperature between +5°C to +25°C. In these conditions and in closed original containers, the product will have a shelf life of 12 months.

Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly. If ingested, obtain medical attention immediately. Do not induce vomiting.

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ELASTOTHANE WP1
Technical Data Sheet
Edition: May 2023
Revision: 03

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