MONNELI ELASTOTHANE WP2

Two Component Elastomeric Polyurethane Waterproofing Coating

Product Description

Two components, solvent free, liquid applied Polyurethane based waterproofing coating. It cures upon reaction of its two components and the resulting membrane is high performance seamless elastomeric waterproofing.

Uses

ELASTOTHANE WP2 is designed to waterproof most applications within the building and construction industry including:

- Odorless waterproofing system for bathrooms, swimming pools, kitchens, terraces, balconies, shower areas
- Cold applied waterproofing for flat roofs and concrete structures, basement masonry, roof gardens, car parking
- As a damp proofing course

Advantages

- Solvent free, cold applied
- When applied, forms a seamless leak proof membrane
- Crack bridging
- Full surface adherence on multi-substrate
- Provides impermeable coating
- Outstanding mechanical properties
- High tensile strength and elongation
- High abrasion resistance
- Good chemical resistance
- Versatile, ideal for applications in both new and old substrates

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 WP2 of 1.0mm thick extended to 75 mm on both sides of the crack. Voids and honeycombs shall be patched with BETOFINISH C or EPOFINISH C 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 WP2 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 of ELASTOTHANE WP2, 200mm wide shall be applied and centered over all the sealed joints. While the membrane is still wet, cover with a correct cut strip of fiber mesh, then apply another coat of ELASTOTHANE WP2 until it is fully covered. Allow to cure before the general application.

Priming

Highly porous concrete or concrete containing micro-silica will be sealed using Primer PU, a solvent based epoxy primer. The primer shall be applied at a rate of 6-8 m^2/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.

Mixing

ELASTOTHANE WP2 is supplied in two pre- weighed packs (Base (A), Hardener(B)), ready for onsite mixing. Mixing should be carried out using a heavy duty, slow speed drill fitted with mixing paddle. The contents of base (part A) should be thoroughly stirred to disperse any possible settlement. The entire contents of the hardener can should be stirred and added to the base container.

Mix thoroughly for 2-3 minutes taking extra care to avoid air entrapment. Mix until a homogeneous mixture is attained.

Improper mixing may result in product failure. Once mixed, the material must be used within its pot life.

Application

ELASTOTHANE WP2 can be applied by brush, roller or airless spray. Subsequent layers could be done only after the first layer has been cured tack free (min 16 hours). In below ground structures, wet areas and roofs, the application thickness should not be less than 1.2mm.

All liquid application should be in at least two coats. It should be ensured that the material is not applied at excessive film thickness in single layer. Excessive film thickness may create bubbles.

A layer of ARMOFLEX, a fiber glass mesh should be embedded between the two ELASTOTHANE WP2 coats over pipe culverts, floor drains, corner joints and floor / wall junctions.

The final wet coat of ELASTOTHANE WP2 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

Clean all the tools and application equipment with water immediately after use. Hardened or cured material can only be removed mechanically.

Recommendations

- ELASTOTHANE WP2 should not be applied on surfaces with a risk of rising dampness
- Don’t apply the product with imminent rain forecast.
- Don’t mix more material than can be used within the pot life of mixture
- Incorrect assessment treatment of cracks may lead to a reduced service life and reflective cracking ELASTOTHANE WP2 is not designed to be exposed in external applications
- Apply only when substrate and ambient temperature exceeds +5°C. During application the surface temperature must be +3°C above dew point.

Technical Data

Properties	Results
Appearance	Liquid
Color	Grey (Other colors available on request)
Density at 25°C	1.45 kg/L
VOC	10.0 g/L
Solid content	100%
Pot life at 25°C	40 minutes
Elongation at break (ASTM D412)	180%
Tensile strength (ASTM D412)	> 5 N/mm²
Modulus of elasticity (ASTM D412)	0.6 N/mm²
Bond strength (ASTM D4541)	> 2 N/mm²
Shore A hardness (ASTM D2240)	75
Crack bridging (ASTM C 1305)	1.5 mm
Depth of water penetration (BS EN 12390)	No penetration after applying water pressure of 300 kPa at 72 Hours
Application surface temperature	+5°C to +35°C
Drying time	24 hours
Complete curing	7 days
Service temperature	-5°C to +80°C

All values are subject to 5-10 % tolerance

Consumption

1 m²/Liter at 1mm thickness

Packaging

ELASTOTHANE WP2 is packed in 4 and 15 Liter cans

Storage

Keep the product in dry and sheltered place at temperature between +5ºC to +25ºC. 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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