Technical Data Sheet

HYDROTHANE WP2

Elastomeric Two Part Polyurethane Waterproofing Membrane

Description:

HYDROTHANE WP2 is a solvent free, high build elastomeric two component liquid applied waterproofing membrane based on Polyurethane resins for high elasticity and high durability features.

HYDROTHANE WP2 contains no coal tar and cures by chemical reaction between base and hardener. Once cured it forms high dense, seamless, continuous, monolithic membrane with excellent adhesion to most substrates including concrete, plaster, masonry, and metal surfaces.

The cured membrane has high flexibility and high resistance to chemicals. It is recommended for waterproofing application where high flexibility and chemical endurance is required at building structures including foundations, kitchen and toilet floors, and industrial wet processing areas. It can also be applied as an intermediate waterproofing membrane in car park systems.

Applications:

HYDROTHANE WP2 can be applied as a water proofing membrane at:

- Wet areas: showers, bathrooms, kitchens, balconies, planters, pools, especially in public used utilities.
- Roofing and corrugated sheets waterproofing.
- Water proofing at meat, poultry, factories and food processing area.
- Bridges, basements, retaining walls.
- Swimming pools and water parks waterproofing, where high features of waterproofing membrane are required.
- Intermediate layer in car parking flooring systems where a flexible PU membrane is required to create a deck water proof car parking systems for multi store parking area.

Advantages:

- High build liquid applied seamless waterproof membrane in single application.
- Fast drying chemically cured product.
- Low odour, tar free product.
- Highly flexible to be applied where movement is expected.
- Crack bridging ability, can serve as waterproofing membrane in car park systems.
- Chemical resistant to detergents, cleaning materials, brackish water and salt water.
- Easy applied by manual tools.
- Provides impermeable coating with outstanding mechanical properties.
- Ideal for applications in both new and old substrates.

Instructions for Use:

Surface Preparation:
The surface should be sound, clean, dry and free from loose and flaking materials, efflorescence, laitance, curing compounds, dirt, oil, rust, grease or other contaminants. Concrete should be cured for at least 28 days and have moisture content less than 5%. In case of deep contamination, or for application on old or existing surface, use mechanical methods like grinding or grit/ captive blasting in order to remove deep contamination to ensure clean and sound substrate.

All shrinkages and nonmoving structural cracks under 1.0 mm shall be filled with not less than 1.0 mm thick pretreatment strip of HYDROTHANE WP2 extended to 50 mm on both sides of the crack. For parapet walls, columns, make a 45°C coving fillet at all corners using LAVAREP F40.

Apply 1 mm thick reinforcing pretreatment strip of HYDROTHANE WP2 extending 100 mm on both sides

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of the coving. Voids and honeycombs must be patched with concrete repair products. Allow the patched area to cure before applying the liquid membrane coating.

Apply a rich coat of ARMOPRIME EP100 to enhance mechanical adhesion between the coating and the substrate in case of porous substrates.

All metal surfaces to be treated with sand blasting or mechanical preparation method to reach bright steel condition, apply the product directly to prevent steel reaction with air moisture and formation of corrosion.
For expansion joints, treat the expansion joint with MEGASEAL PU1. When the sealant is cured, a layer strip of HYDROTHANE WP2, 200 mm wide should be applied centered over all sealed joints. While the membrane is still wet, cover with a correct cut strip of fiber mesh, then apply another coat of HYDROTHANE WP2 until it is fully covered. Allow the applied strip to cure before applying further coats of the waterproofing membrane.

Mixing:
The system consists of pre-weighed base & hardener components. Mix the contents of component A (Base) with a low speed mixer for one minute to homogenize the content of the container. Slowly add the contents of part B (Hardener) to Part A container and mix thoroughly the materials with low speed mixer fitted with a suitable paddle for an interval of 3-4 minutes confirming a homogenous, color consistent, lump free mixture is reached. Leave the mixed material for a period of 2 minutes to relax and release entrapped air within the mix. Note that the mixing process is exothermic (heat generating), if excess heat is noticed, avoid excessive mixing, and/or control the speed of mixing machine.

Application:

HYDROTHANE WP2 can be applied by brush, roller or airless spray. It is recommended to apply two coats to ensure an effective watertight system. Subsequent layers could only be done only after the first layer has been cured tack free can be applied. Apply the first coat to the surface in a spread rate of 2.0 square meter /liter/ coat. The second coat must be applied once the first coat

Is completely dry with same rate of application preferably in 90 degree application. In below ground structures, wet areas and roofs, the minimum recommended thickness should not be less than 1.2mm. Ensure that the material is not applied at excessive film thicknesses in single layer as this might may create bubbles

Do not leave HYDROTHANE WP2 membrane exposed for elongated periods, as mechanical damages might occur to the monolithic membrane. Apply protection sheets to ensure proper coverage. if the product to be totally exposed to sun and atmosphere, apply ARMOFLOOR UVR protective layer on top of the membrane after curing. While applying the product in wet areas, it is recommended to pay extra attention to penetrations. An additional strip of product to be applied around penetrations such as pipes and conduits to ensure proper sealing and waterproofing features

HYDROTHANE WP2 can receive further toppings once it is fully cured. If utilized as a membrane in car park waterproofing systems, it can be applied as a monolithic water proofing membrane. Broadcasting QUARTZ to the membrane will enhance the mechanical grip of subsequent layers of Polyurethane coatings, but the ratio of flexibility will reduce.

Standards:

HYDROTHANE WP2 conforms to:

- ASTM C836, ASTM C 501, ASTM D412, ASTM D624

Coverage:

HYDROTHANE WP2 achieves coverage of 1.0 liter per 1 m² @ 1.0 mm dry film thickness.

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Packaging:

HYDROTHANE WP2 is available in a set of 4 and 15 liter supplied in metallic dual pack.

TECHNICAL PROPERTIES		
Color	:	Grey (other colors upon request)
Density	:	1.40 kg/m³
Pot Life	:	40 minutes @ 25°C
Solid Contents	:	100%
Touch dry	:	24 hours
Full Dry	:	3 days
Water vapor trans.	:	0.3 g/h/m²
Adhesion to concrete	:	2.5 N/mm²
Tear Resistance	:	11 N/mm
Shore A hardiness	:	73
Tensile Strength	:	5 N/mm²
Elongation	:	Above 200%
Water penetration	:	NIL
Chemical Properties:	:	
Acidic solutions		Resistant
Alkali solutions		Resistant
Sea, brackish water		Resistant
Oil and grease		Resistant
Detergents		Resistant
Thinners and solvents		Moderate resistance
Crack bridging	:	Up to 2mm, no effect
Recovery from 100% extension	:	97 %
Water Impermeability	:	Impermeable
Application Service temperature	:	+5°C to +40°C
Modulus of Elasticity	:	2 N/mm²

Storage:

Store in original packing in dry conditions away from direct sunlight in a temperature controlled warehouse. Stored at +15°C to +25°C

Shelf Life:

HYDROTHANE WP2 can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

Cleaning:

Clean all tools with ARMOSOLVENT before product hardens.

Remarks:

- HYDROTHANE WP2 should not be applied on surfaces with a risk of rising dampness.
- Should not be applied at temperature below 5°C,
- Don't apply the product with imminent rain forecast.
- Water test should be run after the membrane is fully cured (min. 7 days).
- 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.
- HYDROTHANE WP2 is not designed to be exposed in external applications.

Health and Safety:

- Use goggles and gloves during application. Do not breathe the vapor of the product. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- In case of splashes in the eyes, wash abundantly with warm water and consult a doctor.

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