

HYDROTHANE WP1

Elastomeric Single Component Polyurethane Waterproofing Membrane

Description:

HYDROTHANE WP1 is a high build elastomeric single component moisture cured liquid applied waterproofing membrane. It is based on Polyurethane resins without the addition of Tar for environmentally friendly applications. When cures it forms a seamless continuous monolithic membrane that has excellent adhesion to most substrates including concrete, plaster, masonry, and metal surfaces.

HYDROTHANE WP1 membrane is characterized with high flexibility and high resistance to chemicals, and recommended for applications where long lasting, maintenance free waterproofing system is required at building structures including foundations, kitchen and toilet floors, industrial wet processing areas.

Applications:

HYDROTHANE WP1 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 areas,
- 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.
- Self-priming, requires no primer to adhere to substrate
- 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 coated first with a pretreatment strip of HYDROTHANE WP1 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 one coat of HYDROTHANE WP1 as a reinforcing pretreatment strip extending 100 mm on both sides 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.

Usually, for well-prepared surfaces, primer will not be needed. For porous surfaces, a 10% thinned coat of

HYDROTHANE WP1

HYDROTHANE WP1 with ARMOSOLVENT can be applied to serve a primer.

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 WP1, 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 WP1 until it is fully covered. Allow the applied strip to cure before applying further coats of the waterproofing membrane.

Mixing:

HYDROTHANE WP1 is a single component product, shake the drum well to mix any settled material or, mix the contents with a slow speed mixer to ensure full mixing.

Application:

HYDROTHANE WP1 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. Apply the first coat to the surface in a spread rate of 0.5 Ltr. per square meter per 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 1.0mm. Ensure that the material is not applied at excessive film thicknesses in single layer as this might may create bubbles.

Do not leave HYDROTHANE WP1 membrane exposed for elongated periods, as mechanical damages might occur to the monolithic membrane. Apply protection sheets to ensure proper coverage. HYDROTHANE WP1 membrane must be cured for a minimum of 24 hours before placing protection.

If the product to be totally exposed to sun and atmosphere, apply ARMOFLOOR UVR or ARMOGUARD UV 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 WP1 can receive further toppings once it is fully cured.

For tile flooring it is recommended to provide a good mechanical grip key with the membrane, by spreading the final wet coat of HYDROTHANE WP1 with silica sand. 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 WP1 conforms to:

- ASTM D2240, ASTM C836, ASTM D412, ASTM D624

Packaging:

HYDROTHANE WP1 is available in 15 liter pails.

Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

Coverage:

HYDROTHANE WP1 pail achieves coverage of 12.5 sq. meter @ 1.0 mm dry film thickness.

Shelf Life:

HYDROTHANE WP1 can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

HYDROTHANE WP1

TECHNICAL PROPERTIES:	
Color	: White, Grey
Density	: 1.35 kg/m ³
Solid Contents	: 85%
Touch dry	: 12 hours
Full Cure	: 7 days
Water vapor trans.	: 0.3 g/h/m ²
Adhesion to concrete	: 2.0 N/mm ²
Shore A hardness	: 40±5%
Tensile Strength	: 2.4 N/mm ²
Tear Resistance	: 11 N
Elongation	: 300%
Water penetration	: NIL
Chemical Properties	: Good Resistance against acidic and alkali solutions, detergents, seawater and oils.
Crack bridging (ASTM C836)	: Passed 2 mm no loss of bond
Swelling in Water @ 3 days	: NIL
Service Temperature	: -5 to 80°C
VOC	: 127 g/L

Remarks:

- HYDROTHANE WP1 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
- Incorrect assessment treatment of cracks may lead to a reduced service life and reflective cracking.

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 eyes contact, clean immediately with plenty of clean water and seek medical care.

Cleaning:

Clean all tools with ARMOSOLVENT before product hardens.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

