

HYDROTHANE PRO

Two component, Cold Applied Polyurea Waterproofing Membrane

Description:

HYDROTHANE PRO is a rapid cure, high build elastomeric two component liquid applied waterproofing based on polyurea resins. 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 superior waterproofing membrane with high flexibility and chemical resistance is required at building structures including roofing, foundations, kitchen and toilet floors, and industrial wet processing areas.

Uses:

- Waterproofing of roof tops.
- Wet areas: showers, bathrooms, kitchens, balconies, planters, public used utilities
- For construction works, tunnels, bridge decks, basements, retaining walls.
- Swimming pools and water parks waterproofing, where high features of waterproofing membrane are required.
- Over coat waterproofing of old bitumen felts, asphalt felts, EPDM, PVC membranes and acrylics.
- Waterproofing under plant equipment on roof tops.
- Sealing and protecting substrates from weather, impact, chemicals attack and abrasion.
- Repairing mechanical damage of hot sprayed Polyurea lining systems.

Advantages:

- Simple application-squeegee/rake trowel, roller or brush
- Provides waterproofing properties within 30 minutes of application. Minimizes bad weather damage after application.

- Completely seamless membrane. Zero welds, overlaps or joins.
- Cold Applied over the top of old existing waterproofing systems.
- Conforms exactly to substrate shapes eliminating potential stress points when covering with final floor slabs or other toppings such as pavers.
- 800% elongation, with Excellent crack bridging properties.
- Excellent adhesion to nearly all substrates-concrete, steel, aluminum, wood, foam, etc.
- Can transgress multiple substrate types in one application.
- Mechanical damage can be easily repaired.
- Chemical resistant to detergents, cleaning materials, brackish water and salt water.
- Excellent abrasion resistance, with high impact resistance and thermal stability.
- Ideal for applications in both new and old substrates, high bond strength.

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. All projections, rough spots, etc should be dressed off to achieve a level surface prior to application. 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 open textured 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 PRO extended to 50 mm on both sides of the crack. For parapet walls, columns, make a 45° coving fillet at all corners using LAVAREP F40.

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Apply 1 mm thick reinforcing pretreatment strip of HYDROTHANE PRO 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.

Apply a rich coat of ARMOPRIME EP100-solvent free high performance epoxy primer 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.

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 3-4 minutes to achieve a homogenous, color consistent, lump free mixture. Over mixing must be avoided to minimize air entrapment.

Application:

HYDROTHANE PRO can be applied using a squeegee, brush, roller or airless spray. 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. 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 at right angle to the first coat. In below ground structures, wet areas and roofs, the minimum recommended thickness should not be less than 1 mm. Ensure that the material is not applied at excessive film thicknesses in single layer as this might create blisters. While applying the product in wet areas, an additional strip of product to be applied around penetrations such as pipes and conduits to ensure proper sealing and waterproofing features

PROCESSING PROPERTIES	
Material consumption (kg/m ² /1 mm)	Approx 1.0
Recommended Thickness per layer	0.5-1mm
Recommended membrane thickness (mm)	Min1 mm
Rain resistance time (approx.)	30 minutes
Over coat window (h)	30 minutes – 12 hours
Curing/loading after	Foot traffic: 30-60 minutes Mechanical: 12 hours
Curing/loading after	5 days
Temperature range for application (ambient) (°C)	5-40°C
Specific Gravity	1.48 g/ml
Solid Content	98%
Tensile strength (Mpa)	10
Elongation at break (%)	800%
Hardness (Shore A)	65
Abrasion Resistance	10 milligrams
Resistance to mechanical damage by static impression	High Resistance
Resistance to water pressure	No leak
Crack bridging	4mm
Service Temperature	-20 C to +90C
Pull off strength (N/mm ²)	≥ 2.0 (Concrete failure)
Storage conditions (°C)	10-30 (Avoid product freezing or heating)

Note: All data depends onsite conditions. Ambient temperatures, substrate temperatures and humidity with all have an effect on stated data. Film thickness and application techniques can also affect the stated data. Cold Temperatures will result in slower curing times and high temperatures will increase reactivity and reduce curing times relative to the stated data.

Standards:

- DIN EN ISO 11890-1, DIN EN 827, ISO 37-2005, DIN 52455, ISO 868-2003, DIN EN 12701
- ASTM D-1259, D-2697, D-638, D-412, D-2240, D-4060, D-903

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Coverage:

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

*Coverage rate is an approximate value, and subject to actual site conditions.

Packaging:

HYDROTHANE PRO is available in a set of 8 liters supplied in metal dual pack.

Storage:

Store in original packing in dry conditions away from direct sunlight in a temperature-controlled warehouse. Stored at +10°C to +30°C.

Shelf Life:

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

Cleaning:

Clean all tools with ARMOSOLVENT before product hardens. Hardened materials can only be removed mechanically.

Remarks:

- Relative humidity must be greater than 50% and no more than 85%. The substrate temperature must be at least 5°C above measured dew point temperature.
- In order to avoid blistering, it is recommended to apply the coating during falling temperature. Control film thickness during application using a thickness gauge.
- 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 PRO color might slightly change if exposed in external applications.

Health and Safety:

- Always used appropriate PPE, including gloves, safety goggles and a barrier cream to avoid contact with skin and eyes.
- Should contact with skin and eyes occur, wash immediately with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

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