Technical Data Sheet

HYDROTHANE TR2

Two Component Polyurethane Based Tar Extended Liquid Applied Waterproofing Membrane

Description:

HYDROTHANE TR2 is a two component, chemically cured high build liquid elastomeric waterproofing membrane based on polyurethane resins modified with tar for extra elasticity and harsh environments.

HYDROTHANE TR2 has excellent adhesion to most substrates including concrete, plaster, masonry, cement render and fiber reinforced cement. Once dry, it cures to form a seamless continuous monolithic membrane that has excellent adhesion to most substrates with extra flexibility and high resistance to chemicals.

HYDROTHANE TR2 is recommended for waterproofing application where high flexibility and chemical resistance is required at building structures including foundations, kitchen and toilet floors, and industrial wet processing areas.

Uses:

- Wet areas; showers, bathrooms, kitchens, balconies, planters, pools, especially in public used utilities.
- Waterproofing concrete panels with potential of movement.
- Roofing and corrugated sheets waterproofing.
- Cement pipes and metal.
- Bridges, basements, retaining walls.
- Highly compatible in sewage works, waste water channels and pipes due to its chemical resistance features.

Advantages:

- High build liquid applied membrane in single application.
- Highly flexible, to be applied where movement is expected, without the risk of cracking.
- Self-priming, requires no primer to adhere to substrate.
- Vapor permeable allows substrate to breathe.
- Chemical resistant to detergents, cleaning material, brackish water and salt water.
- Easy applied with excellent workability by manual tools.
- Easy to repair damaged coats.
- High thermal stability. Suitable for Middle East climate.
- Excellent adhesion to most types of substrates.

Instructions for Use:

Surface Preparation:

All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Ensure that concrete surfaces are fully cured before application and have moisture content less than 5%.

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 TR2 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-fiber reinforced shrinkage compensated repairing mortar. Apply a reinforcing pretreatment strip of HYDROTHANE TR2, 1.0 mm thick extending 100mm 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 forming coating.

Metal surfaces should be cleaned from rust, oil, paint or any contaminants. For rusted surfaces, use mechanical method, or sandblast for removing the rust.

In normal cases, priming is not needed. However, porous surfaces require priming to reduce the risk of blisters caused by air entrapments. Dilute HYDROTHANE TR2 with 10% ARMOSOLVENT and use as a primer.

HYDROTHANE TR2

Primer can also be used for application of new coat on top of old ones.

Expansion and movement joints should not be covered with a coat of HYDROTHANE TR2. Instead, those joints should be sealed with MEGASEAL PU – a polyurethane sealant or MEGASEAL PS - a polysulphide sealant.

Mixing:

HYDROTHANE TR2 is composed of two components that must be mixed at the time of use. 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 entire contents of part B (Hardener) to Part A container and mix thoroughly the material with low- speed mixer (200-300 rpm) fitted with suitable paddle, for an interval of 3-4 minutes.

Application:

HYDROTHANE TR2 can be applied with a roller, trowel, brush or spray machine. It is recommended to apply two coats in case of roller or brush applications. Apply rich coat to the surface in a spread rate of approx. 0.65 Kg/m^2 per coat. Subsequent coats to be applied to the first coat with same rate of application preferably at right angle to the first coat.

HYDROTHANE TR2 can be applied by brush, roller, trowel or by airless spray machine. It is recommended to apply two coats to achieve a minimum 1.0 mm dry film thickness. Second coat should be applied at right angle to the first coat once it is completely dry.

Do not allow the coating to be exposed for long periods of time, in order not to eliminate the chance of membrane damage or contamination. It is recommended to cover the membrane once it is completely cured by mortar, tiles or any finishing product as specified.

Do not apply tile adhesive to HYDROTHANE TR2 membrane while the coat is still uncured. Provide a good mechanical bonding between tiles and the membrane, by spreading the final coat of HYDROTHANE TR2 with silica sand while it is still wet.

Standards:

- ASTM D2240, ASTM 836, ASTM D412, ASTM D624

TECHNICAL PROPERTIES	
Color	Black
Density	1.60 ± 0.03 kg/lit
Solid Content	100%
Touch Dry	10 hours
Full Dry@25°C	7 days
Potlife@25°C	30 min
Application Temperature	+5°C to +40°C
Adhesion to Concrete (ASTM 4541-02)	1.5 N/mm^2
Shore A Hardness (ASTM 2240)	50
Tensile Strength (ASTM D412)	2.5 N/mm^2
Elongation (ASTM D412)	500%
Crack Bridging (ASTM 1305)	>2 mm
Modulus of Elasticity (ASTM D412)	0.64 N/mm^2
Tear Resistance (ASTM D624)	9.1 N/mm
Recovery from 100% Extension (ASTM D412)	97%
Water Impermeability	Impermeable
Water Vapor Transmission	0.3 g/h/m^2
Service Temperature	-5°C to 80°C
Chemical Properties	Good resistance against acidic and alkali solutions, detergents, seawater, brackish water and oils

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Coverage:

HYDROTHANE TR2 achieves coverage of 1.0 lit per 1 m^2 @ 1.0 mm dry film thickness

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

HYDROTHANE TR2

Packaging:

HYDROTHANE TR2 is available in 4 liter and 15 liter set of two parts metal containers.

Storage:

HYDROTHANE TR2 to be stored in original packing in dry conditions away from direct sunlight and high humidity levels. Store at +15°C to 25°C.

Shelf Life:

HYDROTHANE TR2 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 3°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.
- HYDROTHANE TR2 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.
- Don't mix more material than can be used within the pot life of mixture.
- Construction site should be well ventilated
- Incorrect assessment treatment of cracks may lead to a reduced service life and reflective cracking.
- HYDROTHANE TR2 is not designed to be exposed in external applications.

Health and Safety:

- Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapor or spray mist.

FIRST AID:

Eyes:	In the event of accidental splashes, flush with warm water and seek medical advice.
Skin:	Wash skin thoroughly with soap and water
Inhalation:	Remove to fresh air, keep patient rested
Ingestion:	Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to HYDROTHANE TR2 Material Safety Data Sheet.

MATEX Rev.11-1026

MATEX warrants that its products are free from material and manufacturing defects. Instructions on how to use the product should be strictly followed to ensure effectivity and safe use. MATEX shall not be liable either directly or indirectly for any damages to personal, equipment or products that may occur as a consequence of the failure of any products application because it has no direct or continuous control over where or how its products are applied. It is the user's responsibility to acquire always the updated version of datasheets.