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TECHOTHANE- PU

HIGH BUILD ELASTOMERIC BITUMINOUS POLYURETHANE BASED WATERPROOFING MEMBRANE

TECHOTHANE PU is high performance PU based cold applied elastomeric coating. The high elasticity, excellent bond and low water permeability of Techothane PU make it ideal for a wide range of water/vapour proofing applications.

Technical Characteristic

Test Parameters	Standards	Results
Solid Content	IS 101/1964	Min. 80 %
Specific Gravity	IS 101/1964	1.60
Hardness (Shore A)	ASTM D 2240	Min. 60
Elongation	ASTM D 412	Min. 600 %
Tensile Strength	ASTM D 412	Min. 1.5 N/mm2
Crack Bridging Capacity	ASTM C836	Min. 3.2 mm
Water Vapour transmission for 1.3 mm film Thickness	ASTM D 1653-03	9.74 g/m2/24 hrs.
Permeability (ASTM E 96) DIN 1048	ASTM E 96	Passes
Recovery after 200 % elongation	ASTM D 412	> 95%
Modulus at 100 % elongation	ASTM D 412	0.65 mm2
Std Approved & test Method	ASTM C 836, IS 101/1964, ASTM D-2240, ASTM D 412, ASTM D 1653-03, ASTM E 96	
DFT	1 mm	
Coverage	1.1 to 1.3 kg / m2(It may be vary as per the condition of substrate)	

Features/Advantages

- Non-toxic
- Water based product, hence, an eco friendly product
- Flexible at wider temperature range, can be applied in moist roof also
- Excellent water vapour barrier
- The excellent chemical resistance of **TECHOTHANE PU** makes it particularly suitable for tanking applications in areas where aggressive ground water conditions prevail.
- One component, ready to apply direct from the can. Liquid application means details are simplified and there are no joints in the membrane.
- Highly elastic, cures to give a permanently flexible resilient barrier over a wide range of temperatures
- Rapid installation; significantly reduces time spent on preparatory works and detailing, excellent adhesion, can be applied to a wide range of substrates. Continuous adhesion prevents lateral migration of water.
- Impervious -outstanding barrier properties ensure protection against corrosive soil conditions.
- Thermally stable - irreversible chemical cure eliminates melting and flow at high temperature
- Excellent resistance to oxidation and embrittlement
- Mechanical damage to the membrane can be easily repaired by spot application
- Anti-root properties

Typical Applications

The high elasticity, excellent bond and low water permeability of **TECHOTHANE PU** make it ideal for a wide range of water/vapour proofing applications such as foundations, basements, tunnels, ground floors, suspended floors, car decks, roof terraces, balconies, podiums, bridges, parking areas, inspection pits, water retaining structures (not potable water), sewage works, and inverted roofs. It can be used on metal or corrugated sheets with special primer 'PR 71 primer'.

Standard Compliance

TECHOTHANE PU meets the requirements of ASTM C836

Direction for Use

Surface Preparation

All surfaces to be waterproofed should be sound, clean and dry. Concrete surfaces should have a light steel-trowel followed by a fine hair broom or equivalent finish which is dry and free of dust, oil and other contaminants. All high spots should be removed. Moss and laitance must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly with clean water and allow drying. All metal surfaces should be made clean of paint, oils, rust and other contaminants.

Priming

Priming is not normally required on good quality concrete substrates. However, absorbent surfaces such as porous concrete sand/cement and cement boards will require sealing to prevent absorption of **TECHOTHANE PU**. This should be done using a Primer PR-71.

Cracks

All shrinkage and rigid structural cracks should be pre treated with a polymer modified mortar. Allow to cure overnight before general application.

Application Procedure

1. The dry film thickness (DFT) of **TECHOTHANE PU** should not be less than 0.5 mm or more than 1.0 mm for each coat. Rough or textured surfaces will reduce the coverage rate and consequently more material must be allowed to achieve the minimum DFT.
2. **TECHOTHANE PU** is a membrane coating, not paint and as such protection is only achieved with a high film build, i.e. 1 mm on flat surfaces minimum. The membrane can be applied in one 1 mm coat or two 0.5 mm coats maintaining min DFT of 1mm & above.
3. Two coats are recommended on uneven and jointed surfaces to minimize the possibility of thin patches, missed areas and pin holing. Also sloping or vertical surfaces will only accept 0.5 mm per coat. In the case of two-coat application, it is important to re-coat within 24 hours of the first coat becoming sufficiently cured to allow operator access.
4. The minimum application life (after opening the pack) is up to 48 hours if stored in closed containers.
5. A short haired synthetic coating brush should be used.
6. If a water test is to be done, the membrane should be fully cured.
7. For better durability and strength in critical areas use Geotextile Mesh of 45 GSM in 'Sandwich Layer System'

Curing and Protection

1. **TECHOTHANE PU** membrane must be cured for a minimum of 24 hours @ 25°C before placing protection. Where damage to the membrane is possible (by traffic, backfilling, etc.) it should be protected by a cementitious screed or protection boards. A dust coat of cement should be used to prevent adhesion of the membrane to the boards. Where a bond with the topping is not required, a separator sheet should be used.
2. To prevent damage to the membrane it is recommended that **TECHOTHANE PU** is laid in strips of 1 meter width to permit the application of a screed or Protection Board from the uncoated area.
3. All exposed areas of Techothane PU should be coated with Wallnut-5 white to ensure maximum resistance to ultraviolet radiation.
4. Do not store material in opened container for a long time.

Cleaning

Tools and equipment should be cleaned with suitable Solvent immediately after use. Do not use the solvent for thinning except where a sealing coat is required.

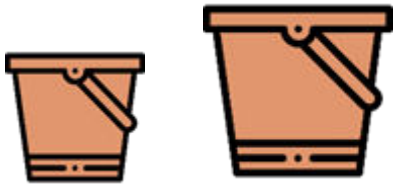
Chemical Properties

TECHOTHANE PU is unaffected by a range of mild acids, alkalis and water borne salts and is resistant to bio-deterioration.

Health & Safety

1. Use mask, nose cover and hand gloves during application.
2. Clean hands with soap water after application.

Packing



5 Kg 20 Kg

Storage and Shelf Life

Store in a cool dry place under shed away from heat. One year in original unopened conditions.

Disclaimer

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential non performance.