

## MONNELI ELASTOTHANE TR

*Pitch Elastomeric Single Component Polyurethane Waterproofing Membrane*

### Product Description

A liquid applied, pitch modified, single-component moisture-cured polyurethane coating, designed to form a seamless, elastomeric rubber waterproofing membrane. When fully cured ELASTOTHANE TR forms a permanently flexible waterproof lining to most building surfaces including reinforced concrete, block works, brick works, cement render, plaster board and fibre-reinforced cement.

### Uses

ELASTOTHANE TR can be used for a wide range of waterproofing applications for:

- Roofs
- Basements and foundations
- Tunnels and bridges
- Terraces and balconies
- Car decks
- Plaza decks
- Planter boxes
- Retaining walls
- Internal wet areas (kitchens, bathrooms)
- Fountains and pools
- Sewages works
- Tanking applications in areas where aggressive ground water conditions prevail

### Advantages

- Single component. Ready for use
- Excellent elasticity, allows expansion and contraction with the substrate, without cracking or becoming brittle
- Excellent chemical resistance, has high resistance to oxidation and embitterment
- High thermal stability which eliminates melting and flowing at high temperature
- Excellent workability
- Excellent adhesion can be applied to a wide range of substrates
- Seamless-no joints
- Easy to repair

### Instructions for Use

#### Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Oil, grease, varnishes, rust, dust and mould on metal surfaces shall be removed by wire or stiff brushing and grit blasting then wiped with SOLVENTE 10 prior to priming.

New concrete or cementitious surfaces should be at least 28 days old and have moisture content not exceeding 5%. Old or existing surface should be refurbished mechanically to ensure clear and sound substrate.

## **Crack Treatment**

Shrinkages and non-moving structural cracks less than 1.0mm shall be filled with a pre-treatment strip of ELASTOTHANE TR of 1.0mm thick extended to 75 mm on both sides of the crack. Voids and honeycombs shall be patched with BETOFINISH C or EPOFINISH C allowing the area to cure before applying the membrane.

## **Right Angle Bends**

All right angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using BETOCEM FIBER, a Fiber reinforced shrinkage controlled mortar for concrete repair to the water saturated cured surface.

All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of ELASTOTHANE TR extending 150mm on both sides of the coving.

## **Movement Joints**

Expansion and movement joints should be sealed with ELASTOSEAL PU25, a polyurethane sealant. When cured a stripped layer of ELASTOTHANE TR, 200 mm wide shall be applied and centered over all the sealed joints. While the membrane is still wet, fibre mesh shall be pressed to soak before saturating it again with another coat of ELASTOTHANE TR till it is fully covered. Allow to cure before the general application. The surface shall be prepared.

## **Priming**

In case of very porous substrates, it is advisable to apply ELASTOTHANE TR diluted with 20% of SOLVENTE 10 as primer.

The primer should be left to achieve a tack-free condition before applying the top coat.

## **Mixing**

ELASTOTHANE TR should be stirred before use until a uniform color and consistency of the product is achieved.

## **Application**

ELASTOTHANE TR shall be applied by brush, roller, trowel or airless spray in 2 coats to achieve a minimum dry film thickness of 1.0 mm. The two coats must be applied at right angles to one another.

A layer of ARMOFLEX, a fiber glass mesh should be embedded between the two ELASTOTHANE TR coats over pipe culverts, floor drains, corner joints and floor / wall junctions.

## **Cleaning**

Tools and equipment used for ELASTOTHANE TR should be cleaned with SOLVENTE 10 directly after use.

## **Recommendations**

- Don't apply the product with imminent rain forecast, or on humid support..
- ELASTOTHANE TR should not be applied on surfaces with a risk of rising dampness and should not be applied at temperature below +5°C.
- The maximum application life for the opened pack is up to 48 hours if stored in closed and dry container.
- Water test should be run after the membrane is fully cured.
- During the peak temperature of the day in the summer season, working area should be covered to prevent direct sun effects.
- It is recommended to spread sufficient clean silica and to the final wet coat of ELASTOTHANE TR before applying tile adhesives. Tiling or finished floor installations should be carried out as soon as possible after full cure of membrane is established.

## Technical Data

Properties	Results
Appearance	Black liquid
Density at 25°C	1.3 kg/L
Elongation at break (ASTM D412)	>300%
Tensile strength (ASTM D412)	> 1.7 N/mm <sup>2</sup>
Recovery from 100 % elongation (ASTM D412)	95%
Adhesion to concrete	>1.0 N/mm <sup>2</sup>
Tear resistance (ASTM D624)	14.5 N/mm
100% Modulus of elasticity (ASTM D412)	0.6 N/mm <sup>2</sup>
Crack bridging (ASTM C836)	No loss on bond after extension of 3.2mm
Water vapor transmission (ASTM E96)	0.3 g/h/m <sup>2</sup>
Swelling in water at 3 days	Nil
Shore A hardness	45 ± 5
Extensibility after heat ageing	No Cracking or Tearing
Chemical properties	Good resistance against acidic and alkali solutions, detergents, seawater and oils.
Tack free time at 25°C	12 hours
Final curing time at 25°C	2 days at 1.3mm thickness
Service temperature	-5°C to +80°C

All values are under standard lab conditions.

## Consumption

Approximately 0.9 m<sup>2</sup>/Liter at 1mm thickness

## Packaging

The product supplied in 20 Liter cans

## Storage

Keep the product in dry and sheltered place at temperature between +5 °C +25°C. In these conditions and in closed original containers, the product will have a shelf life of 9 months.

## Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly. If ingested, obtain medical attention immediately. Do not induce vomiting.

The information in this Technical Data Sheet is based on Colmef Monnelli's experience. Colmef Monnelli does not accept any liability arising from the use of its products as it has no direct or continuous control over where or how its products are applied. All Colmef Monnelli's Data Sheets are updated on regular basis. It is the user's responsibility to obtain the latest version.

DUBAI  
ABU DHABI  
ITALY

P.O. Box 123808 Dubai UAE  
P.O. Box 127326 Abu Dhabi, UAE  
Z I Ponte d'Assi 06024 Gubbio (PG)

T. +971 4 8803488 F. +971 4 8803450  
T. +971 2 5511949 F. +971 2 5511749  
T. +39 75 9221297 F. +39 75 9221174

ELASTOTHANE TR  
Technical Data Sheet  
Edition: September 2022  
Revision: 05

colmef@colmef.ae

www.colmef-me.com