



TOP COATS FOR WATERPROOFING MEMBRANES



POLY TI

POLY TI TC-40

PRODUCT DESCRIPTION

The POLY TI TC-40 is a pigmented, color- and UV-stable, highly permanent elastic, cold applied and cold curing, one component aliphatic polyurethane coating, used as a top-coat for protection over exposed, polyurethane waterproofing coatings.

Cures by reaction with ground and air moisture over a unique moisture triggered chemical reaction.

Protects very efficiently, especially if a dark final color is desired.

USES

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Waterproofing of Pedestrian Decks and Walkways
- Protection of Polyurethane Foam Insulation

Used over the POLY TI 150/160, etc. on surfaces, with normal pedestrian traffic (e.g. Roofs, Terraces, Balconies, etc.) that require a glossy, color-stable and non-chalking finish.

CONSUMPTION

1,4 – 2,5 kg/m² applied in two or three layers.
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption. In case of POLY TI FABRIC reinforcement, consumption increases.

PACKAGING

POLY TI TC-40 is supplied in 20 kg, 10 kg and 5 kg metal pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5^o-30^oC. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

ADVANTAGES

- Simple application (roller or airless spray).
- One component.
- Increases the abrasion and wear resistance of the waterproofing membrane underneath.
- Provides high sun reflectivity, contributing to thermoinsulation.
- UV and Color stable.
- Gives a glossy and easy-to-clean surface.
- Does not show the chalking effect of aromatic polyurethane coatings.
- Resistant to water, heat and frost.
- Maintains its mechanical properties over a temperature span of -40°C to +90°C.
- The waterproofed surface can be walked on (domestic pedestrian traffic).

COLORS

The POLY TI TC-40 is supplied in white, light grey and brown-red. Other RAL colors may be supplied on demand.

SAFETY MEASURES

POLY TI TC-40 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet.
PROFESSIONAL USE ONLY

APPLICATION

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothed. Any loose surface pieces and grinding dust need to be thoroughly removed.

Waterproofing membrane

See relevant POLY TI product Technical Data Sheet

Top-Coat

Stir POLY TI TC-40 well before using.

Apply the POLY TI TC-40 by roller, brush or airless spray in one or two layers.

Allow 3-6 hours (not more than 36 hours) to cure, between the two layers.

For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

WARNING: The POLY TI TC-40 and/or the POLY TI SYSTEM is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

WARNING: If on the surface where the POLY TI system is applied, there are areas with ponding water, they should be cleaned on regular basis to avoid biological and microbial attack

TECHNICAL DATA

PROPERTY	RESULTS	TEST METHOD
Composition	Pigmented Aliphatic moisture triggered Polyurethane polymer. Solvent based	
Resistance to Water Pressure	No Leak	DIN EN 1928
Elongation at break	289%	DIN EN ISO 527
Tensile strength	3,72 í/mm ²	DIN EN ISO 527
Elongation at break after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	372%	DIN EN ISO 527
Tensile strength after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	2,68 í/mm ²	DIN EN ISO 527
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	Good	DIN 67530
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	No chalking observed. Chalking grade 0	DIN EN ISO 4628-6
Adhesion to the POLY TI 150	>2 N/mm ²	ASTM D 903
Hardness (Shore A Scale)	65	ASTM D 2240 (15")
Solar Reflectance (SR) (white color)	93.50%	ASTM E903-96
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Tack Free Time	1-3 hours	
Light Pedestrian Traffic Time	12 hours	Conditions: 20°C, 50% RH
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents,seawater and oils.	

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