

TBYROTHANE 1K

PU-BASED LIQUID APPLIED WATERPROOFING MEMBRANE

PRODUCT PROFILE :

Tobslak TBYROTHANE 1K is a premium, one-component, ready to use permanent highly elastic, liquid applied polyurethane coating, that cures to a seamless, highly elastic waterproofing membrane with excellent abrasion, mechanical, chemical, thermal & UV resistance.

• PROPERTY PROFILE :

- ☐ Simple & fast application.
- ☐ When applied, forms a seamless membrane, without joints or leak possibilities.
- ☐ Highly resistant to abrasion, water and root, penetration with Tobslak root barrier system.
- ☐ It Impregnates into all mineral and concrete surfaces with high adherence & become integral part of concrete.
- ☐ Fills the non-structural capillary cracks by decreasing water absorbency of the concrete surface.
- ☐ Provides sun reflectivity, contributing to thermo insulation.
- ☐ Suitable onto the old bituminous membranes and asphalt felts, PVC, EPDM membranes using special designed Tobslak all Surface adhesion primers.
- ☐ The waterproofed surface can be used for medium to heavy pedestrian traffic, depending on the Tobslak suggested designed specification.
- ☐ Crack-bridging up to 2mm.
- ☐ Mechanical properties unaffected even in harsh weathering conditions.
- ☐ Economical waterproofing solutions.
- ☐ Coating provides water vapor permeability & full surface adhesion.
- ☐ Resistant to detergents, oils and common chemicals.
- ☐ Easy local repair, if the membrane is mechanically damaged.



RECOMMENDED APPLICATION :

- ✓ Use for roof waterproofing solutions in both new construction and refurbishment projects.
- ✓ To waterproof Raft / Retaining wall in new construction .
- ✓ Green roofing for energy efficiency flower beds and planter boxes.
- ✓ Parking areas and vehicular traffic system bridge decks, balconies & terraces,

APPLICATION METHOD :

- After application of Tbyrosil primer hydrophobizing capillary narrowing with deep protection base coat primer .
- First coat of Tbyrothane 1K has to be applied within 15-30 minutes after primer coat .Application by brush, roller or an airless spray with pump requirements can be used.
- Laying of Tobslak fleece on wet surface recommended between the two coats.
- Top coat of Tbyrothane 1K has to be applied after fleece laying. Application by brush, roller or an airless spray with pump requirements can be used.

Airless spray recommended pressure

- minimum pressure: 230bar
- minimum output: 5.L/min
- minimum nozzle diameter: 0.80mm

SURFACE PREPARATION

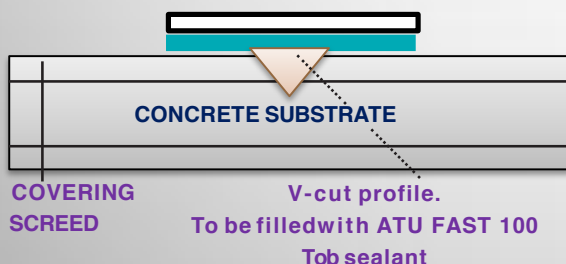
The concrete substrate must be sound and of sufficient compressive strength (minimum 30 N/mm²) with a minimum pull strength of 1.5N/mm². Substrate moisture should not exceed 8% (use moisture meter or polyethylene test in accordance of ASTM D 4263).

- New concrete structures need to dry for at least 28 days.
- The substrate must be clean and free from all traces of loose materials, old coatings, curing compounds, release agents, laitance, oil grease etc. It should be saturated surface dry (SSD) condition.

All ducts, loose and friable material must be completely removed from all surfaces before application of product; preferably by brush and/or vacuum. Structurally unsound layers or surface contaminants must be mechanically removed by abrasive blast tracking, shot blasting, scarifying, or grinding. Substrates heavily impregnated with oil must be cleaned by torching, using suitable solvent or degreaser substance. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.

Roof deck application

- On a well-prepared and mechanically sound concrete slab, apply Screed to achieve desired slope-to-drain surface level.
- With these joints, create a V-cut profile using concrete grinder or router with the size of approximately 2 inches on both edge diagonally, as shown in the illustration below:
- Apply Tobslak ATU FAST 100 sealant to fill completely the V-cut profile, about 1.5 inches in depth.



NO PROBLEM WITH DETAILS

All the waterproofing coatings of the TOBSLAK SYSTEM cure to form permanently elastic, seamless membrane providing waterproofing on a long-term basis, even to the most difficult and problematic details. While others waterproofing membrane or systems fall at these difficult detail areas, the TOBSLAK SYSTEM has proven itself to perform, even in the most extreme climatic zone on the planet. The TOBSLAK SYSTEM creates a seamless membrane with full surface adhesion to the surface, so no additional mechanical fixing or additional flashings are required.



Pipe Penetration

Seal the gap between pipe and slab using TOBSLAK ATU FAST 100 for about 2 inches in diameter.



LEVELS OF USE CATEGORIES ACCORDING TO ETAG 005:

Working Life:	W2	10years minimum
Climate zone:	M and S	North and South Europe
Imposed loads:	P1 to P3	Up to high pedestrian traffic
Dachneigung :	S1 bis S4	Roof slope from <5° to >30° Lowest surface
temperature:	TL3	-20°C
Highest surface temperature:	TH9	90°C
Reaction to fire:	Class E	EN 13501, DIN 4102-1 und -7 Resistant to wind
loads:	>50 kPa	Resistant to all wind loads

TBYROTHANE 1K MATERIAL PREPARATION

Stir the material well by means of an electric stirrer (approximately 500 rpm). Mixing time at least 2-3 minutes until homogenous mixture is achieved.

TECHNICAL DATA		
Characteristic	Results	Standard
Form	Paste / Liquid	
Colour	White / Grey	
Density	1.30 kg/L	
Viscosity	7,500 – 12,000 cps	ASTM D2393
Solid Content	80% by weight;	ASTM D1259
Tensile Strength	>4 MPa	ASTM D412 / DIN 52455
Elongation at Break	>400%	ASTM D412 / DIN 52455
Water Vapor Permeability	>25 g/m ² /day	ISO 9932:91
Crack Bridging Capability	Up to 2mm crack	EOTATR-008
Shore A Hardness	65	ASTM D2240
Root Resistance	Resistant	UNE 53420
Adhesion (Pull-Off) Strength	>2 Mpa	ASTM D4541
Service Temperature	-30°C to +90°C	Tobslak Std.
Application Temperature	Between +15°C to +38°C	Tobslak Std.

COATING SYSTEM

Raft / Retaining wall / Roof / Podium

Priming

Substrates like concrete, cement mortar TBYROSIL recommended as primer, then apply TBYROTHANE 1K within 15- 30 minutes, wet on wet application recommended to give a best bonding between the coats . Fleece should be used as reinforcement for wall-floor connections, pipe penetration, flashing etc. For this application, apply the 1st coat TBYROTHANE 1K and then embed the Fleece of recommended thickness and immediately apply 2nd coat TBYROTHANE 1K.

	Product	Consumption	Thickness
1st Coat	TBYROTHANE 1K	0.75 L/m ²	350 µ
2nd Coat	TBYROTHANE 1K	0.75 L/m ²	350 µ

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

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With the publication of this Technical Information Sheet all previous editions are no longer valid.



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