

TURBAL TP -160

APP MODIFIED WATER PROOFING MEMBRANE

DESCRIPTION

TURBAL TP-160 is a waterproofing membrane, produced in highly controlled process conditions, out of a robust reinforcement of spun bound, non-woven polyester and straight run bitumen, modified with selected A.P.P polymers and stabilizers.

FEATURES

- APP modified asphalt.
- Options for thickness as per requirement.
- Polyester reinforced.
- Options for surface finishes in exposed and covered applications.

ADVANTAGES

- Stability at high temperatures.
- Excellent puncture and tear resistance.
- Excellent resistance to U-V rays, aging and weathering.
- Superior waterproof barrier to the roof structure.
- Superior bonding to the substrates at seams.
- Easy for application and repair works.
- Rot proof.
- Resistant to chloride, sulfates and soil chemicals.

STANDARDS

Applicable standards : UEAtc MOAT 27-1983 & MOAT 30-1984 , CGSB, ASTM and DIN.

FIELD OF APPLICATION

TURBAL TP-160 is ideal to use for new and re-roofing applications on any concrete and cement surface that needs water proofing. It can be used in almost every waterproofing applications which includes roofs, balconies, basements, reservoirs, bridges, tunnels, lining for sewage canals, sub grade structures etc.

GENERAL DATA

Roll length : 10 m
Roll width : 1 m
Thickness : 3, 4 & 5mm

Reinforcement : Non-woven polyester fabric,

Finish: Both side polymer film

DIRECTIONS FOR USE

TURBAL TP-160 is installed by torch welding method, either loose laid or fully bonded to the substrate.

Surface cleaning:

The surface to be waterproofed must be thoroughly cleaned and should be made free from dust, debris, oil, protruding elements etc.

Priming:

Coat the prepared surface with a suitable primer. (recommended **AHLIA'S CAPSOLVENT OR PRIME GUARD**).

Tools for application:

- Gas torch
- Trowel with rounded tip
- Marking aids
- Knife / Cutter
- Measuring tape
- Safety accessories

Fixing instruction:

Roughly calculate the area of the surface that the **TURBAL TP-160** has to be installed / fixed. Arrange the material nearby as per the calculated area.

The installation should be started from one edge / end of the surface that the membrane to be installed. Unroll one piece of **TURBAL TP-160** over the surface with minimum 10 cm side lap alignment, so as to get a clear profile. Fixing should be either loose laid or fully bonded as explained below.

Loose Laid:

Re-roll the unrolled membrane approximately to half its total length or to a length suitable for application without changing the orientation. Melt the sides of the membrane, minimum 15 cm from the edges, by using the gas torch without damaging the polyester reinforcement. Fix the melt portion firmly to the pre-primed surface before solidification. Position the subsequent rolls, so as to give a length edge overlapping of minimum 10 cm

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Continue the procedure until the desired area is fully fixed with **TURBAL TP-160**.

Each finished overlap should be passed by the torch along the joint and the melted compound should be spread with a trowel or roller to ensure a smooth tight seal.

Fully bonded:

Re-roll the membrane fully without changing the desired orientation. Melt the lower surface of the membrane with a gas torch by moving the flame across the entire width of the roll. Fix the melt portion firmly to the pre-primed surface before solidification. Positioning of subsequent rolls should be done in the same manner as

of loose laid membrane. As the surface of the roll is heated, it will develop sheen. The generation of smoke is an indication that the material is being overheated.

STORAGE

The rolls of TURBAL TP-160, whether loose or packed on pallets, must always be kept upright on a smooth flat support. A second layer may be stored on top of the first, provided that the first Material should be store under shade.

SHELF LIFE:

Minimum 36 months under recommended storage conditions.

HEALTH AND SAFETY

Handling of TURBAL TP-160 requires no special health and safety precaution

TYPICAL PHYSICAL PROPERTIES

The details given in the Technical Data is based on the average values of the tests conducted on several samples. The tests conducted on the material comply with the criteria stipulated in the standards, viz. UEAtc, CGSB, ASTM and DIN.

Description	Unit	Average of test result *	Test Method	
Thickness	mm	≥ 4	DIN 52123	
Polyester reinforcement	gram/m ²	160	-----	
Softening point of coating compound	°C	≥ 150	ASTM D-36	
Water absorption	%	< 0.2	ASTM D-570	
Dimensional Stability	%	± 1	UEAtc, CGBS	
Heat resistance	100 ± 2°C; 2 hrs	No deformation	DIN 52123	
Water vapor transmission	gram/m ² /24 hrs	< 1	ASTM E96, 25°C, 50% R. H	
Tensile strength; N/5 cm	Longitudinal	N/5 cm	Min. 700	DIN 52123
	Transverse		Min. 500	
Elongation %	Longitudinal	%	> 40	DIN 52123
	Transverse		> 40	DIN 52123
Tear resistance	Longitudinal	N	> 480	ASTM D4073,
	Transverse		> 380	
Water tightness	Kpa	>75		
Static indentation resistance	: On Rigid support		L4	UEAtc
	: On non rigid support		L4	
Dynamic indentation resistance	: On Rigid support		l4	UEAtc
	: On non rigid support		l4	

Note: * The above shown technical data are based on 4 mm membrane from our standard production.

*** Above figures may have a variance of + 10 %**

TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

Note : The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.

As all Ahlia Technical Data Sheets are updated on a regular basis, it is the user responsibility to collect most recent issue.