

DWI

DERMABIT®
WATERPROOFING IND.

FIBERPOL

An APP type modified bituminous membrane



GENERAL DESCRIPTION

FIBERPOL is a high performance bridge-deck waterproofing membrane reinforced with a core of non woven polyester of 180g/mp nominal weight combined with a 70g/m² fiberglass fleece. It is suitable for the waterproofing of bridges, flyovers, viaducts, aqueducts, ramps, elevated roadways, multi storey car parks as well as roofs and basements.

SPECIAL FEATURES

- Extra thermal and mechanical strength provided by the fiberglass fleece just underneath the surface allowing direct asphaltting without the need for any further layer.
- Excellent resistance to ageing and atmospheric agents.
- Strong resistance to site abuse and maintenance traffic.
- Maintains shape stability at high temperatures.
- Accommodates structural movements.
- Remains flexible at low temperatures.
- High mechanical characteristics
- Comes as 4mm or 5mm thick. It can be manufactured on demand with different combinations of polyester and fiberglass weight and according to **ASTMD6163 type 1** or **EN 14695** (2010)
- The top surface is covered with either fine sand (SAND) or a thin Polyethylene film (PBS). It can also be self protected with natural slates (SL)
- The bottom surface is covered with a thin easy torched Poly-Ethylene film.
- Resistant to water-borne chemical attack.

COATING MIXTURE OF THE MEMBRANE

The waterproofing capability is provided by the coating mix of the **FIBERPOL** membrane. The reinforcement made of nominal 180g/mp non-woven polyester mat is impregnated with this mix then combined with the 70g/m² fiberglass fleece and coated to factory regulated thickness. The mix is made up of bitumen, heavily modified with Amorphous Poly-olefins, thermoplastic resins and stabilizers giving the membrane its excellent resistance to atmospheric agents and ageing, maintaining shape stability at high temperatures, improving adhesion strength and making the membrane easy to apply saving on time and labor.

PACKING

FIBERPOL is manufactured in a standard size of 1x10m, however special length can be done on request. All rolls are sold on pallets and covered with a shrink-wrap.

TOOLS & EQUIPMENT

The application of the **FIBERPOL** membrane requires very limited tools like propane gas torches and cylinder, a knife for cutting the membranes to size and a trowel with rounded end. Various torch heads are sold separately by **DWI** on request.

METHOD OF APPLICATION

The application of **FIBERPOL** is both easy and quick.

Coat the concrete substrate with **DERMAPRIMER** (solvent based bituminous primer according to **ASTMD41**) at the rate of 4-5m² /litre. Allow this coating to dry thoroughly. In time of high humidity we recommend it should be left overnight.

The **FIBERPOL** should first be unrolled and positioned correctly. Each roll should overlap the adjacent roll by 10cm. Once the roll has been positioned correctly, the membrane should be rolled up again, taking care not to change its orientation. Using left to right movements, heat the lower surface of the membrane with a propane gas torch. This will cause slight surface melting and the molten bitumen will adhere to the surface.

You then torch on the side overlap to the recommended size of 100mm. Continue the above method for consecutive rolls remembering end-laps must be minimum 150mm.

Inspection of lap joints must be carried out to ensure total adhesion.

TECHNICAL DATA

DWI products are tested at random intervals by independent laboratories to international standards and the results of these tests are available on request. In addition, each batch manufactured is subject to strict quality control procedures to ensure it meets appropriate and applicable standards and/or norms.

		PROCEDURE	UNITS	TOLERANCE	VALUE
ASTM					
Length			m	<-1%	10
Width			m	<-1%	1
Thickness		ASTM D5147	mm	-0.2mm	4.00
Tensile properties: max, tensile force	- long	ASTM D5147	N/50mm	-20%	900
	- trans	ASTM D5147	N/50mm	-20%	800
Tensile properties: elongation	- long	ASTM D5147	%	-15	40
	- trans	ASTM D5147	%	-15	45
Resistance to tearing	- long	ASTM D5147	N	min	625
	- trans	ASTM D5147	N	min	425
Lap joint strength	- long	ASTM D5147	N/50mm	-20%	900
	- trans	ASTM D5147	N/50mm	-20%	800
Low temperature flexibility*		ASTM D5147	°C	min	-10
Dimensional stability at +80C	- long	ASTM D5147	%	mlv	-0.5
	- trans	ASTM D5147	%	mlv	-0.5
Water Absorption (N/A slate) (2hrs Immersion at 24°C)		ASTM D570	%	mlv	<0.15
CE					
Visible defects		EN 1850-1	N°/m²	0	0
Length		EN 1848-1	m	<-1%	10
Width		EN 1848-1	m	<-1%	1.00
Straightness		EN 1848-1	mm	<20mm	pass
Mass per unit area		EN 1849-1	kg/m²	+/- 10%	4.70
Thickness		EN 1849-1	mm	-0.2mm	4.00
Watertightness to liquid Water		EN 1928-1	mlv	>60kPa	pass
Tensile properties: max. tensile force	- long	EN 12311-1	N/5cm	±10%	900
	- trans	EN 12311-1	N/5cm	±10%	800
Tensile properties: elongation	- long	EN 12311-1	%	-15	45
	- trans	EN 12311-1	%	-15	45
Resistance to tearing (nail shank)	- long	EN 12310-1	N	min	195
	- trans	EN 12310-1	N	min	205
Shear resistance of joint	- long	EN 12317-1	N/5cm	±10%	900
	- trans	EN 12317-1	N/5cm	±10%	800
Resistance to static loading (method A)		EN 12730	kg	min	20
Resistance to impact (h=300mm)		EN 12691	mm	mlv	>700
Flexibility at low temperature*		EN 1109	°C	min	-10
Dimensional Stability	- long	EN1107-1	%	max	-0.5
Flow Resistance less than 2mm		EN1110	°C	mlv	100
Reaction to fire		EN 13501-1		Euroclass	F

* Different cold flexibility values can be supplied to special order.



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