



Biplas PL 4mm/160

APP modified bituminous
membrane - Plain

Waterproofing

Leb	Egypt	Jordan	UAE	Qatar	Kuwait	KSA	Oman
1x10m	1x10m	1x10m	1x10m	1x10m	1x10m	1x10m	1x10m

GENERAL

Biplas PL 4MM/160 is an ideal membrane for the waterproofing of roof, foundations, basements and footings, tanking and car parks. It can also be used for the terraces, wet areas, bathrooms and others.

SPECIAL FEATURES

- Provides a positive barrier to water and vapor.
- Has excellent resistance to atmospheric agents.
- High flexibility at low temperatures.
- Maintains shape stability at high temperatures.
- Its high performance capabilities enable it to withstand thermal shocks, making it ideal for use in exposed systems.
- Resistance to water-borne chemical attack.
- Accommodates structural movement.

COATING MIXTURE

The coating/impregnation mixture used in **Biplas PL 4MM/160** waterproofing membrane, which is also the waterproofing agent, is bitumen which has been heavily modified with APP thermoplastic resins, and stabilizers. This mixture gives the membrane excellent resistance to atmospheric agents and ageing, whilst maintaining shape stability at high temperatures, thus allowing high adhesion strength and making it easy to apply, with consequent saving in time and manpower.

REINFORCEMENT CORE

The membranes are reinforced with a core of non-woven spun bond with continuous thread Polyester fabric, which has a weight of 160g/m² and is both rot-proof and highly malleable. It

is this core which gives the membrane its excellent mechanical properties, allowing for good elongation and affording high resistance to puncture. As an added feature, this core is first impregnated with the coating mixture.

FINISH

The upper surface of the membrane is covered with a thin polyethylene film or on demand, can be covered with fine sand. The bottom surface is covered with a thin film of polyethylene that is burnt-off during the torching process.

APPLICATION TOOLS & EQUIPMENT

You will need a propane gas torch, a gas cylinder, a knife for cutting and trimming and a trowel with a rounded end.

METHOD OF APPLICATION

The application of **Biplas PL 4MM/160** waterproofing membrane is both easy and quick. Where it is to be laid directly in a one-layer system on concrete, tiles or an existing roofing system, a coat of **weberdry prime WB** or **weberdry prime SB** at the rate of 200-300g/m² should first be applied. Allow this coating to dry thoroughly. In areas of high humidity we recommend it should be left overnight. As in all other application, the membrane should first be unrolled and positioned correctly on the surface to be treated. Each roll should overlap the adjacent roll by 10cm. Once the roll has been positioned correctly, the membrane should be rolled up gain, 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 adhesion to the substrate. Continue the above method for consecutive rolls remembering overlaps must be 10cm and end laps 15cm. Inspection of lap joints must be carried out to ensure total adhesion.

PROPERTIES		TYPICAL VALUES	TEST METHOD
Thickness		4mm ± 0.2mm	ASTM D 5147
Reinforcement base		160gms/m ² non-woven polyester	
Tensile strength*	• long	700N/5cm (14 KN/m)	UEAtc 2001 (ASTM D5147)
	• trans	400N/5cm (8KN/m)	
Elongation*	• long	45%	ASTM D 5147
	• trans	50%	
Lap joint strength*	• long	650N/5cm	UEAtc 5.2.2
	• trans	350N/5cm	
Tear resistance*	• long	400N	ASTM D 4073
	• trans	300N	
Cold flexibility		-2 to -5°C	ASTM D 5147
Puncture resistance Static/Dynamic		L15/I15	UEAtc
Softening point		150-160°C	ASTM D-36
Water absorption (24 hrs 23°C)		<1%	ASTM D5147
Penetration (25°C)		15-20 dmm	ASTM D 5
Biplas membranes are resistant to chlorides, sulphates and phosphates found in ground water			

* Values subject to a variation of ±20%

STORAGE

The membranes shall be in its original closed packaging pallets and protected from all sources of heat and extreme temperatures. Do not stack pallets on top of each other. Do not store pallets direct in the sun or in humid area, this may lead to damage its physical properties and reduces its shelf life. The shelf life is 12 months from date of production if stored as per recommendations.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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