

IMPERSEAL 5000

IMPERSEAL 5000 membranes are factory fabricated waterproof sheets of predetermined thickness. These sheets, also known as membranes, are produced by coating a robust rot proof core, with an impervious elastomer modified bituminous compound. The compound is homogenous and highly flexible with rubber like characteristics.

SALIENT FEATURES

- Reinforced with spun bond polyester for good mechanical properties.
- SBS modified elastomeric bituminous mix exhibits excellent elongation and recovery properties.
- Peel & stick – no use of torch flame fast easy cold application, low labour cost.
- Factory controlled thickness – no variation by site labour.
- Self-sealing to minor puncture caused by sharp objects.

USES

- Substructure waterproofing, tanking water reservoirs structures.
- Waterproofing of sewerage concrete manholes, chambers, etc.
- Waterproofing under tiles in wet areas, such as kitchen, bathroom, balconies.
- Damp proof – moisture / vapour proof.
- External tanking, retaining walls,

QUALITY ASSURANCE & MATERIAL WARRANTY

Imperbit Membrane Industries' Management system is registered to ISO 9001 standards.

SURFACE FINISH

The upper surface of **IMPERSEAL 5000** comes with IMI design black printed HDPE film along with 10cm wide strip of siliconized release film for bitumen to bitumen contact at side seams. The lower surface is totally covered with siliconized release film, providing a flat surface for total bonding during application.

TOOLS FOR FIXING

Knife, Measuring tape, Roller, Marking aids and Gloves

APPLICATION METHOD

Surface Preparation: Concrete shall be in place for seven days (minimum) after forms are removed and must be dry. Care should be taken that surfaces to be waterproofed are completely clean, totally dry, smooth, level and free from loose material. Any sharp protrusions such as nails, tying wire, etc. must be removed and cracks, holes, spilled and damaged surfaces filled and repaired. All external corners must be chamfered.

Priming: All vertical and horizontal surfaces must be coated with IMI Concrete Primer complying with ASTM D 41 applied with a brush or roller at the rate of 200-300 gr/m² depending on the porosity of the surface, and allowed to dry completely.

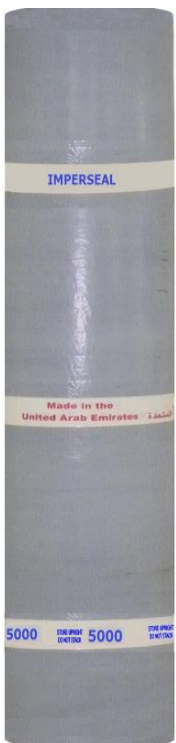
Solvent based Primer complying to ASTM D 41 enhances the adhesion between self adhesive membrane and substrate & it is highly recommended.

Membrane Application: **IMPERSEAL 5000** membranes are applied by positioning the roll over the area to be waterproofed and peeling the siliconized release film about one meter at a time, while pressing the adhesive surface to the primed substrate. The membrane is pressed from mid point to the edges in order to expel any trapped air and to ensure good contact. The adjacent roll is then positioned so as to overlap the fixed membrane by at least 80 – 100 mm along the edge. The selvedge strip provided at the edge of the fixed membrane is then peeled back one meter at a time while fixing the second roll in the same manner as the first. End laps must be min 150-mm wide. All seams must be pressed from the top using a suitable seam roller to ensure total contact and continuity at the seams.

Inspect the fixed membrane to ascertain that all joints are properly executed and all air is expelled from under the membrane.

Corners and Termination: Use fillets or cant strips at all internal corners and chamfer external corners before applying the membrane. A minimum of 250-mm wide reinforcing strip of **IMPERSEAL 5000** is recommended over the corners followed by the full membrane. Top edges of the membrane should be terminated in a chase on vertical surfaces, followed by a suitable bituminous mastic or silicone sealant, to avoid dust, moisture to flow behind the membrane and de-bond the top edge.

Back Filling: Prior to back fills, the membrane should be protected with our Protectar Board/Sheet should be used to protect the membrane.



PROPERTIES		5000	METHOD OF TESTING
Reinforcing Core		Polyester Mat	UEAtc MOAT:31 Para F
Nominal Thickness (mm)		1.5, 1.6 & 2.0	ASTM D 751, UEAtc
Tensile Strength (composite)	Longitudinal	500 N/5cm	UEAtc
	Transversal	400 N/5cm	
Elongation (Composite)	Longitudinal	40 %	UEAtc
	Transversal	45 %	
Tear Strength (composite)- Notch Method, N	Longitudinal	350 N	ASTM D 5147
	Transversal	250 N	
Tear Strength (Composite)- Nail Method, N	Longitudinal	150 N	UEAtc
	Transversal	150 N	
Puncture Resistance (N/mm)		700 N/45mm	ASTM E 154
Elongation (Surfacing Film)	Longitudinal	300 %	ASTM D 638
	Transversal	220 %	
Elongation of Compound (coating compound)		> 1500 %	ASTM D 882
Resistance to Hydrostatic Pressure		74 m (7 bar)	DIN 1048, ASTM D 5385
Low temperature flexibility		-20°C	UEAtc, ASTM D 5147/11
Adhesion Strength	To primed concrete & self	2.0 N/mm	ASTM D 1000
Water Absorption	@ 24 hrs	0.15 %	ASTM D 570
	@ 30 days	0.95 %	
Water Vapour Transmission (composite)		< 0.06 gr/m ² / 24 hrs.	ASTM E 96
Water Permeability		Nil	DIN 1048
Capacity to Bridge Cracks (composite)		Will withstand substrate cracking 1.5 mm width	ASTM C 836
Adhesive softening point		>105 °C	UEAtc (ASTM D 36)
Environmental Resistance		Conforms	ASTM D543
Service Temperature (composite)		7 °C – 45 °C	

HANDLING PRECAUTIONS: IMPERSEAL 5000 membranes have no health hazard when used with our standard application recommendations. IMI CONCRETE primer contains a flammable solvent with flash point of 42°C. Use primer in well ventilated areas away from sources of direct heat or ignition. Inhalation must be avoided and the use of protective clothing, rubber gloves, goggles and barrier cream is recommended. Do not use solvent to clean skin. After work clean hands with soap and warm water or suitable mild detergent. Obtain immediate medical advice if redness or skin irritation appears. In case of mouth or eye contact, flush immediately with fresh water and seek medical advice.

STORAGE: IMPERSEAL 5000 rolls are shipped upright on wooden pallets. The roll must be kept upright at all times. Storage of Imperseal rolls should be in a well-ventilated and covered storage area. Membranes should be stored away from a source of direct heat. If ambient temperatures at storage site fall below 10°C, the rolls should be exposed to warmer temperatures of 10°C to 40°C for periods of up to 2 hours prior to use to facilitate ease of application and good bond to the substrate. Do not stack more than 1 high. **IMPERSEAL 5000** has a shelf life of 12 months from date of production, if stored in a cool, dry store in original unopened packing.

Indicative Loading Capacity for 1.5 & 1.6 mm thickness:
660 Rolls per 40 ft Trailer / 620 Rolls per 20 ft Container

Indicative Loading Capacity for 2 mm thickness:
600 Rolls per 40 ft Trailer / 522 Rolls per 20 ft Container

PACKING: IMPERSEAL 5000 membranes are palletised and shrink-wrapped at the factory.

Product Name	IMPERSEAL 5000		
	1.5	1.6	2.0
Thickness (mm)	1.5	1.6	2.0
Rolls per pallet (Nos.)	30	30	25
Nominal Roll Length (mtrs)	15	15	15
Nominal Roll weight (kgs)	24	26	33

The technical data given here are the average results of tests carried out in our laboratory on the **IMPERSEAL 5000** membrane. IMI reserves the right to change or modify the data without prior notice. All reasonable care has been taken in compiling the data that to the best of our knowledge is accurate and true. All recommendations are made in good faith. **IMPERSEAL 5000** membranes are warranted to be free from manufacturing defects for a period of 10 years. No responsibility can be accepted by us and no warranty is implied with regard to any of the recommendations made in this data sheet, since the conditions of actual use and the labour involved are beyond our control. **IMPERSEAL 5000** membranes are not affected by chlorides, sulphates & phosphates as well as dilute acids found in ground water.

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