

IMPERSEAL 3000 & 4000 XL GREY

IMPERSEAL 3000 & 4000 XL GREY is a tough membrane surfaced with robust cross-laminated HDPE film for hot climates, high mechanical properties, designed to provide sub-structure concrete surfaces with high waterproofing protection.

SALIENT FEATURES

- Tough cross-laminated film on the surface for better protection.
- Unaffected by corrosive salts and dilute acids formed in ground water.
- Self-sealing to minor puncture caused by sharp objects.
- SBS modified elastomeric bituminous mix exhibits excellent elongation and recovery properties.

USES

- Hot climate grade having high solar reflectivity but not recommended for exposed system.
- Substructure waterproofing to areas subject to stress and movement.
- Tanking Water reservoirs and other liquid retaining, or liquid excluding, structures
- Floor waterproofing under tiles or screeds in buildings, commercial & industrial complexes.
- Fast cold application on a primed substrate.

QUALITY ASSURANCE & MATERIAL WARRANTY

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

SURFACE FINISH

The upper surface of **IMPERSEAL 3000 & 4000 XL GREY** is covered with Cross Laminated High Density polyethylene (XL 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.

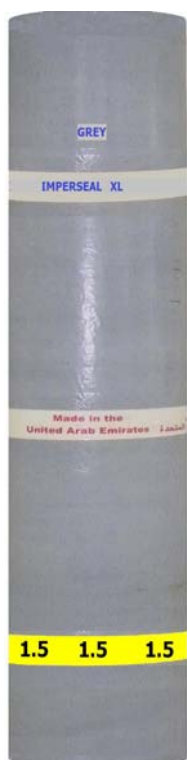
Priming: All vertical and horizontal surfaces must be coated with IMI Concrete Primer applied with a brush or roller at the rate of 200-300 gr/m² depending on the porosity of the surface, and allowed to dry completely.

Membrane Application: **IMPERSEAL 3000 & 4000 XL GREY** 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 selvage 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. Apply a 600-mm wide reinforcing strip of **IMPERSEAL 3000 & 4000 XL GREY** 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 sealant.

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



‡ TECHNICAL DATA FOR IMPERSEAL 3000 & 4000 XL GREY

PROPERTIES	TYPICAL VALUES		METHOD OF TESTING
	3000	4000	
Nominal Thickness (mm)	1.5 & 1.6	1.8 & 2.0	UEAtc, ASTM D 751
Tensile Strength (Composite)	Longitudinal	300 N/5cm	UEAtc
	Transversal	220 N/5cm	
Adhesion Strength	To primed concrete & self	> 50 N/25mm	ASTM D 1000
Tensile Strength (Surfacing film)	Longitudinal	50 N/mm ²	ASTM D 882
	Transversal	50 N/mm ²	
Tensile Strength (Composite)	Longitudinal	5.8 N/mm (width)	ASTM D 638
	Transversal	4 N/mm (width)	
Elongation (Surfacing film)	Longitudinal	210%	ASTM D 882
	Transversal	160%	ASTM D 638 / D 412
Elongation of compound (Coating Compound)		1000 %	ASTM D 412/ D 638
Tear Strength (Surfacing film)	Longitudinal	340 N/mm	ASTM D 1004
	Transversal	310 N/mm	ASTM D 624
Puncture Resistance		280 N	ASTM E 154
Resistance to Hydrostatic Pressure		74 m (7 bar)	DIN 1048, ASTM D 5385
Water Vapor Transmission (Composite)		< 0.30 gr/M ² / 24 hrs.	ASTM E 96
Water Absorption	@ 24 hrs.	0.20%	ASTM D 570
	@ 30 days	0.95%	
Crack bridging ability		Min 1 mm	ASTM C 836
Softening point		102 ^o C	ASTM D 36
Service Temperature (Composite)		7 ^o C – 50 ^o C	

HANDLING PRECAUTIONS: IMPERSEAL 3000 & 4000 XL GREY 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 3000 & 4000 XL GREY 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 3000 & 4000 XL GREY** 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 1.5mm thickness:

660 Rolls per 40 ft Trailer / 620 Rolls per 20 ft Container

Indicative Loading Capacity for 1.8 & 2.0mm thickness:

550 Rolls per 40 ft Trailer / 522 Rolls per 20 ft Container

PACKING: IMPERSEAL 3000 & 4000 XL GREY membranes are palletised and shrink-wrapped at the factory.

Product Name	3000		4000	
	1.5	1.6	1.8	2.0
Thickness (mm)				
Rolls per pallet (Nos.)	30	30	25	25
Nominal Roll Length (mtrs)	15	15	15	15
Nominal Roll weight (kgs)	24	26	30	33

The technical data given here are the average results of tests carried out in our laboratory on the **IMPERSEAL 3000 & 4000 XL GREY** 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 3000 & 4000 XL GREY** 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 3000 & 4000 XL GREY** membranes are not affected by chlorides, sulphates & phosphates as well as dilute acids found in ground water.

IMPERBIT MEMBRANE INDUSTRIES L.L.C.

P O BOX 33150, DUBAI, U.A.E.

TEL : (+9714) 880 1616

FAX: (+9714) 880 1661

E-MAIL : imperbit@alyousuf.com

FACTORY: KM 3, JEBEL ALI - HATTA HIGHWAY, JEBEL ALI INDUSTRIAL 3.

