

# ADHISEAL 3 & 4

**ADHISEAL 3 & 4** are Industrial grade self-adhesive membranes in 3mm and 4mm thickness, consisting of a tough non-woven polyester core, elastomer modified bitumen compound and surfacing material in multi-layers, laminated together to form a uniform, factory-produced sheet.

## SALIENT FEATURES

- Strong spun bond polyester core provides superior mechanical properties of dimensional stability and high resistance to tear and puncture.
  - SBS modified elastomeric bituminous mix exhibits excellent elongation and recovery properties, essential in withstanding substrate cracking and settlement movements.
  - Extra thickness provides single layer waterproofing in critical and demanding jobs.
  - Unaffected by corrosive salts and dilute acids found in ground water.
  - Self-sealing to minor puncture caused by sharp objects.
- Wide temperature tolerance range ensures stability in tropical climates and flexibility at lower temperatures.

## USES

**ADHISEAL 3 & 4** membranes are designed for use where a single layer extra thick heavy duty waterproofing system is required. Such applications include, but are not limited to:

- Substructure waterproofing to areas subject to hydrostatic pressure, stress and movement.
- Tanking water reservoirs and other liquid retaining, or liquid excluding, structures.
- Floor waterproofing under tiles or screeds in buildings, commercial and industrial complexes.
- Waterproofing of balconies, terraces, plaza decks, etc (not suitable for use directly under tile pedestals).

## QUALITY ASSURANCE & MATERIAL WARRANTY

Imperbit Membrane Industries' Management system is registered to ISO 9001 standards & all **ADHISEAL 3 & 4** membranes carry a 10 year material warranty. In addition to stringent regular test by IMI laboratory, our products are also tested periodically by independent laboratories.

## SURFACE FINISH

The upper surface of **ADHISEAL 3 & 4** is covered with IMI design printed black High Density Polyethylene (HDPE) film & 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/m<sup>2</sup> depending on the porosity of the surface, and allowed to dry completely.

**Membrane Application:** **ADHISEAL 3 & 4** 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. Apply a 600-mm wide reinforcing strip of **ADHISEAL 3 & 4** 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 ADHISEAL 3 & 4



PROPERTIES		ADHISEAL 3	ADHISEAL 4	METHOD OF TESTING
Reinforcing Core		200 gr/m <sup>2</sup> spun bond non woven polyester		UEAtc MOAT: 31 Para F
Nominal Thickness (mm)		3 mm	4 mm	UEAtc, ASTM D 751
Tensile Strength	Longitudinal	800 N/5cm		UEAtc
	Transversal	600 N/5cm		
Elongation	Longitudinal	45%		UEAtc
	Transversal	50%		
Tear Strength (Notch Method)	Longitudinal	450 N		ASTM D 5147
	Transversal	350 N		
Puncture Resistance		800 N		ASTM E 154
Resistance to Hydrostatic Pressure		>70 m (>7 bar)		DIN 1048, ASTM D 5385
Adhesion Strength	To primed concrete & self	50 N/25mm		ASTM D 1000
Adhesive Softening point		>100 <sup>0</sup> C		ASTM D 36
Water Vapour Transmission (Composite)		0.10 gr/m <sup>2</sup> /24 hrs		ASTM E 96
Water Absorption, % wt.		<0.20%		ASTM D 570
Impermeability of membrane to water		Absolute		UNI 8202
Capacity to bridge cracks		Withstands substrate cracking of up to 2 mm		ASTM C 836
Chemical Resistance		Conforms		ASTM D 543

**HANDLING PRECAUTIONS:** ADHISEAL 3 & 4 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:** ADHISEAL 3 & 4 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 upto 2 hours prior to use to facilitate ease of application and good bond to the substrate. Do not stack more than 1 high. ADHISEAL 3 & 4 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 3mm thickness:**  
550 Rolls per 40 ft Trailer / 522 Rolls per 20 ft Container  
**Indicative Loading Capacity for 4mm thickness:**  
440 Rolls per 40 ft Trailer / 414 Rolls per 20 ft Container

**PACKING:** ADHISEAL 3 & 4 membranes are palletised and shrink-wrapped at the factory.

Product Name	ADHISEAL 3 & 4	
Thickness (mm)	3.0	4.0
Rolls per pallet (Nos.)	25	20
Nominal Roll Length (mtrs)	10	10
Nominal Roll weight (kgs)	33	46

The technical data given here are the average results of tests carried out in our laboratory on the ADHISEAL 3 & 4 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. ADHISEAL 3 & 4 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. ADHISEAL 3 & 4 membranes are not affected by chlorides, sulphates & phosphates as well as dilute acids found in ground water.

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\* This technical data sheet supersedes all previous publications pertaining to this product

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