

**SBS SELF-ADHESIVE BITUMEN WATERPROOFING MEMBRANE FOR HOT CLIMATE APPLICATION**

**Description**

NIROSEAL APP SA is a high-quality self-adhesive SBS modified waterproofing sheet membrane reinforced with rot proof reinforcement to enhance the dimensional stability. The self-adhesive bottom surface is laminated with Siliconized release foil or paper and the top surface of the membrane is laminated with a cross-laminated special multilayer high-density polyethylene film resulting in outstanding physical properties making NIROSEAL APP SA as one of the most rugged self-adhesive membranes. The advanced carrier film is manufactured by cross laminating and chemically bonding the layers together. It is used for a variety of waterproofing and damp proofing applications where the requirements are rigorous.

**Uses**

- Flashings to pitched roofs
- As a vapour barrier in both conventional and deck roof systems.
- Robust and ideal waterproofing and damp proofing membrane specially designed for concrete protection.
- Applied as a damp-proof course for tanking below ground structures, foundations, subways and retaining walls.
- Used directly on thermal insulation boards
- Substructure waterproofing to foundations, footings, retaining walls, bridges, tunnels, manholes, etc.
- Under roof shingles in pitched roofs tiles in balconies, terraces, etc.

**Advantages**

- Extremely flexible with over 1200% elongation (of coating compound)
- Bridges shrinkage cracks in the concrete.
- Elastomeric and self-healing- accommodates minor settlement.
- High strength cross laminated film imparts high dimensional stability, tear strength, puncture and impact resistance.
- Self-adhesive - eliminates need for the torching.
- Excellent resistance to aggressive soils and contaminated ground water.
- Provides maximum resistance to water or vapour transmission.

**Characteristics\***

**Properties of Membrane**

# Membrane thickness (+/- 5%) (ASTM D 751) : 1.5 mm  
# Softening point (ASTM D36) : 115°C

# Heat resistance @ 90°C / 2 h (UEAtc)	: No Flow
# Flexibility at low temperature (ASTM D1970)	: -24°C
# Tensile strength (ASTM D5147)	
Longitudinal	: 350 N/5cm
Transverse	: 250 N/5cm
# Elongation at break (ASTM D5147)	: > 300%
# Tear resistance (ASTM D5147)	
Longitudinal	: 220 N
Transverse	: 150 N
# Puncture Resistance (ASTM E154)	: 220 N
# Resistance to Hydrostatic Pressure (DIN 1048, ASTM D5385)	: 8 bar
# Adhesion Strength to Primed Concrete (ASTM D1000)	: 2.2 N/mm
# Adhesion Strength to self (ASTM D1000)	: 2.2 N/mm
# Water Vapour Transmission (ASTM E96)	: 0.2 gr/m <sup>2</sup> /24hrs
# Water Absorption (ASTM D570)	
	: @ 24 hrs. - 0.14 %
	: @ 35 days - 0.95 %
# Environmental Resistance (ASTM D543)	: Conforms
# Crack Bridging Ability (ASTM C836)	: 2 mm

**Properties of Coating Compound (Adhesive Compound)**

# Elongation (ASTM D882) : 2000 %  
# Softening Point (UEAtc, ASTM D36) : 110°C

**Properties of Top Surfacing (Cross Laminated Film)**

# Tensile Strength (ASTM D882)	
Longitudinal	: 35 N/mm <sup>2</sup>
Transverse	: 30 N/mm <sup>2</sup>
# Elongation (ASTM D882)	
Longitudinal	: 550 %
Transverse	: 600 %
# Tear Strength (ASTM D1004)	
Longitudinal	: 180 N/mm
Transverse	: 190 N/mm

\*The above values are typical average values based on the laboratory test and are subjected to the tolerance levels of UEAtc / ASTM directives.

**Application**

All surfaces to be waterproofed should be free from ice, frost or condensation.

Temperature of surface should be between 5°C and 40°C during membrane installation.

All surfaces to receive NIROSEAL APP SA shall be sound, clean and dry, free from cracks, loose material, undulations, litanse, sharp protrusive materials, etc.

The well-prepared dry surface should be primed with one coat of NIROSEAL APP PRIMER, applied by brush or roller @ 4 to 6 m<sup>2</sup>/ltr, depending on the surface porosity and allowed to dry completely before the application of the NIROSEAL APP SA.

NIROSEAL APP SA should be laid by peeling back the protective release paper and applying the adhesive face onto the primed surface.

Adjacent rolls are aligned and overlapped minimum 50 mm at side laps and 100 mm at end laps and well rolled with a firm pressure using a suitable roller to ensure complete adhesion and continuity between the layers. During winter, the application of the gentle heat between layers by hot air gun or soft flame will assist promoting adhesion at lap joints. Care should be to ensure that no wrinkles formation takes place during membrane installation.

NIROSEAL APP SA when installed under the raft slab, it should be extended minimum 300mm beyond the retaining wall so as to envelope on to the vertical surface and connect to the membrane on vertical plane.

Any punctures or damage in the installed membrane should be cleaned and patched using NIROSEAL APP SA with 100 to 150 mm laps all around.

Once the membrane installation is complete, care has to be taken to ensure proper protection against physical damage from other civil trades.

It is recommended to apply a 25 to 50mm screed as horizontal protection to the installed membrane

### Packaging and Roll sizes

NIROSEAL APP SA is supplied in rolls as follows:

Nominal Roll Length	20 m
Nominal Roll Width	1 m
Nominal Thickness	1.5 mm
Nominal Weight	30 Kg. (1.5mm)

### Technical support

NIRMAN CHEMICALS provides technical advisory services for on-site assistance and guidance on mix design, optimum dosage evaluation of trials.

### Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

For specific storage advice consult our local NIRMAN CHEMICALS representative.

### Note

All Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact our local NIRMAN CHEMICALS representative.

### Disclaimer

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