SOPRALENE
FLAM 180 / 180 GR

TECHNICAL DATA SHEET

ANZ-TDS-09-SOPRALENE FLAM 180 / 180 GR

BRANZ Appraised
Appraisal No.1145 [2021]

WATERPROOFING

APPLICATIONS
ROOFS
FOUNDATIONS
PLAZA DECKS

DESCRIPTION

SOPRALENE FLAM 180 and **SOPRALENE FLAM 180 GR** are SBS-modified bitumen waterproofing membranes designed for roofing and below grade applications. Both membranes are reinforced with an ultra-high strength 180g/m^2 non-woven polyester providing excellent puncture resistance.

SOPRALENE FLAM 180 top and bottom surface are covered with a thermofusible plastic film. **SOPRALENE FLAM 180 GR** top surface is covered with granules; bottom surface is covered with thermofusible plastic film.

- Compliance with AS 4654.1
- Variety of thicknesses and surface finishes
- High mechanical properties
- High resistance to tear and puncture
- High resistance to hydraulic pressure
- Wide temperature tolerance

FIELD OF APPLICATION

Designed to fit for single-ply or two-ply waterproofing assemblies, **SOPRALENE FLAM 180** membranes are used in vertically and horizontally waterproofing for the following general applications:

- General roofing
- Plaza decks
- Balconies
- Planter boxes (in conjunction with SOPRALENE FLAM JARDIN)
- Retaining Walls

APPLICATION METHOD

SOPRALENE FLAM 180 can be fully heat welded using a propane torch, MINI MACADEN machine or mechanically fixed (only when used as under layer in multi-layer roofing assemblies).

SOPRALENE FLAM 180 GR is fully heat welded using a propane torch or MINI MACADEN machine.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should be started until all surfaces are smooth, dry and free of ice, snow or any other substance that may prevent the membrane from adhering properly.
- Substrate must have a minimum 1% gradient to ensure that water drains to drainage outlets.
- Do not install heat welded membranes directly onto combustible substrate.
- Concrete substrate must be fully cured before application of the membrane.
- Concrete substrate must have a Concrete Surface Profile (CSP) between 3 and 5 as per International Concrete Repair Institute.
- Adhesion test is recommended prior to installation of membrane.
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator.

PRIMING

- When installed as top layer over base sheet membrane, primer is not required,
- When installed over concrete or metal surface prime with ANTIROCK PRIMER at the rate specified in TDS.

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INSTALLATION PROCEDURE (CONT.)

HEAT WELDING

- Unroll membrane sheets onto the roof surface.
- Starting at the low point of the roof, lay out the membrane to ensure the plies are installed perpendicular to the roof slope, shingled to prevent back-water laps.
- Ensure specified side-laps and end-laps are maintained. End-laps should be staggered 1 m apart.
- As the membrane ply is unrolled, apply heat to the underside of the ply until the thermofusible plastic film melts sufficiently for full adhesion to the substrate, and full adhesion between plies.
- For hand-held roof torches, continuously move the torch side-to-side across the underside of the roll to melt the bitumen while continuously unrolling sheet. While unrolling and heating the sheet, ensure approximately 6 to 12 mm of hot bitumen flows ahead of the roll, and there is 3 to 6 mm bleed out at all laps. Ensure all side-laps are fully adhered and sealed watertight.
- Adjust application methods to accommodate varying environmental conditions as necessary to achieve the desired results.
- At the 150 mm end-laps ensure a fully adhered watertight seal. Melt the thermofusible plastic film or embed granules and remove other membrane surfacing, where present, using a torch or hot-air welder.
- All penetrations und upturn details should be waterproof as per SOPREMA Installation Guides and detail drawings.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SPECIFICATIONS	SOPRALENE FLAM 180	SOPRALENE FLAM 180 GR
Thickness	3 mm	4 mm
Roll dimensions	10 m × 1 m	8 m × 1 m
Roll weight	36 kg	39 kg
Rolls per pallet	30	30

(All values are nominal)

PROPERTIES

PROPERTIES	TEST METHOD	SOPRALENE FLAM 180	SOPRALENE FLAM 180 GR
Abrasion resistance*	AS 1580.403.2	NPD*	PASS
Bond strength to concrete	ASTM C794	1500 N/m	
Cyclic movement	CSIRO Moving joint test (B)	PASS	
Dimensional stability	ASTM D5147	MD: -0.09 % ; CD: -0.18%	
Elongation at break	AS 4654.1	MD: 55 % ; CD: 59 %	
Field seam strength	ASTM D1876	36.5 ±8 N/2.5cm	
Heat ageing	AS 4654.1 (AS 1145.3)	PASS ; no visual change	
Ultraviolet resistance*	AS 4654.1 (AS 1145.3)	PASS ; no visual change	
Heat resistance	ASTM D4799	110	
Tensile strength	ASTM D5147	910 N/5cm ; 530 N/5cm	
Durability	AS 4654.1	PASS	
Water vapor transmission rate	AS 4654.1	0 perm**	

* Applicable only to self - protected Sopralene Flam 180
** The results values are below the variation of the equipment. We consider that the sample have no water vapor transmission

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STORAGE AND HANDLING

Rolls must be stored upright, with the selvedge side on top. If stored outdoors, cover them with an opaque protection cover after removal of the delivery packaging.

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, their representative and/or the contractor are responsible for checking the suitability of products for their intended use.

Note: Field service where provided, does not constitute supervisory responsibility. Suggestions made by Soprema Australia Pty Ltd either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they are responsible for carrying out procedures appropriate to a specific application.