



WATERPROOFING

APPLICATIONS

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FOUNDATIONS

SOPRALENE 180

TECHNICAL DATA SHEET

APTDS-E-05-05

DESCRIPTION

SOPRALENE 180 membranes are composed of a non-woven polyester reinforcement and SBS modified bitumen. **SOPRALENE FLAM 180** can be used as a waterproofing membrane on foundation walls and others horizontal or vertical below grade concrete surfaces.

FOR COMPLETE INFORMATION ON APPLICATION AND SYSTEMS, PLEASE CONSULT OUR SPECIFICATION MANUAL.

PROPERTIES

| Composition | SOPRALENE | |
|--------------------|----------------------------|-------------|
| | FLAM 180 | FLAM 180 GR |
| Thickness | 3.0 mm | 4.0 mm |
| Dimension | 10 × 1 m | 8 × 1 m |
| Weight | 36 kg | 39 kg |
| Top Face | Film | Granules |
| Underface | Thermofusible plastic film | |
| Reinforcement | Non-woven polyester | |
| Storage | Upright on pallet | |
| Application method | Torch applied | |

| Properties | SOPRALENE | Standards |
|---|-------------------------------|------------------------------------|
| Strain energy, (MD/XD) | 9.0 / 7.0 kN/m | As per CAN/CGSB-37.56-M, 9th draft |
| Breaking strength, (MD/XD) | 17 / 12.5 kN/m | |
| Ultimate elongation, (MD/XD) | 60 / 65 % | |
| Tear resistance | 60 N | |
| Static puncture | 400 N | |
| Dimensional stability, (MD/XD) | -0.3 / 0.3% | |
| Water Vapour Transmission (ASTM E96 method B) | 0.21 ng / Pa.s.m ² | |
| Plastic flow | 105 °C | |
| Cold bending* | -30 °C | |
| Lap adhesion | | |
| - Initial | 23.5 kN/m | |
| - 5 days at 50 °C | 24.0 kN/m | |
| - 14 days at 70 °C | 24.0 kN/m | |

* Initial and after 90 days ageing at 70 °C.

(All values are nominal)



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ADDITIONAL CHARACTERISTICS

| Properties | Test method | Values | |
|-------------------------------|--|------------------------|-------------------------------|
| | | Machine Direction (MD) | Cross Machine Direction (CMD) |
| Abrasion resistance* | AS 1580.403.2 | Pass | |
| Bond strength to concrete | ASTM C794 | 1500 N/m | |
| Cyclic movement | AS 4654.1 | Pass | |
| Field seam strength | ASTM D1876 | 36.5 ±8 N/2.5cm | |
| Heat ageing | AS 4654.1 (AS 1145.3) | Pass | |
| Heat resistance | ASTM D5147 | 110°C | |
| Ultraviolet resistance* | AS 4654.1 (AS 1145.3) (ASTM D4799) | Pass | |
| Water vapor transmission rate | ASTM E96 | 0 perm** | |

* for self-protected membrane **SOPRALENE FLAM 180 GR**.

** The results values are below the variation of the equipment. We consider that the sample have no water vapor transmission.

