

## PRODUCT DATA SHEET

TECHNICAL DATA SHEET 101802009ME001

SUPERSEDES: TECHNICAL DATA SHEET SLNEFLM05\_190507SMEIE001  
 TECHNICAL DATA SHEET SLNEFLM10\_190507SMEIE001  
 TECHNICAL DATA SHEET SLNEFLM20\_190507SMEIE001

### DESCRIPTION

SOPRALENE® FLAM 180 is a series of flexible reinforced SBS-modified bitumen sheet membranes for use in approved single or multi-ply and flashing assemblies. It is composed of a proprietary formulation of elastomeric styrene-butadiene-styrene (SBS) polymer modified bitumen and is reinforced with a tough, dimensionally stable non-woven polyester mat. The topside is surfaced with thermofusible film or slate flakes and underside are surfaced with thermofusible film.

### STORAGE & HANDLING

Rolls must be stored in upright position, with selvedge side on top to prevent damage. Store rolls in a clean dry location and cover as necessary to protect from any environmental impact such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of SOPRALENE® FLAM 180.

### USER APPLICATION

SOPRALENE® FLAM 180 can be used in single ply or 2-ply, vertically and horizontally in substructure and superstructure applications. All the application guidelines are described in SOPREMA® Technical Manuals in force.

INSTALLATION		ACCESSORIES	SOPRADERE HT - SOLVENT BASED PRIMER
			AQUADERE HT - WATER BASED PRIMER
			SOPRABOARD SF - PROTECTION BOARD
			SOPRAMASTIC LM - BITUMINOUS MASTIC
HEAT WELDED			

ADVANTAGES	<ul style="list-style-type: none"> <li>■ <b>Versatility:</b> Designed to fit perfectly to the different user applications</li> <li>■ <b>Reliability:</b> Proprietary blend offering high resistance to weathering</li> <li>■ <b>Durability:</b> Superior waterproofing protection after aging</li> <li>■ <b>Reflectivity:</b> Reduction of heat absorption by the system</li> <li>■ <b>Sustainability:</b> Contribution to LEED</li> <li>■ <b>Warranty:</b> Comprehensive warranty option programs</li> <li>■ <b>Recyclability:</b> Product composition can be recycled</li> </ul>
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### SHELF LIFE

Material will have a 12 months shelf life if stored in a dry and properly ventilated area, sheltered from the elements or any harmful substances. Material shall be adequately protected from environmental impacts to the properties or the performance of the membrane.

### HEALTH, SAFETY & ENVIRONMENT

The product does not contain any substance likely to be detrimental to health or to the environment and complies with generally admitted Health & Safety Requirements. For further information please refer to relevant Material Safety Data Sheet (MSDS).

### TRACEABILITY

Product traceability is ensured through a manufacturing identification present on the packaging.

### QUALITY MANAGEMENT

SOPREMA always recognises as a high level of importance the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality Management Systems in line with ISO 9001:2015.



## COMPOSITION & PACKAGING

SOPRALENE FLAM 180					
PROPERTY	3P20	4P20	4F20	5P20	5F20
Cold flexibility	- 20 °C				
PROPERTY	3P10	4P10	4F10	5P10	5F10
Cold flexibility	- 10 °C				
PROPERTY	3P5	4P5	4F5	5P5	5F5
Cold flexibility	-5 °C				
Reinforcement	180 g / m <sup>2</sup>				
Thickness	3.0 mm	4.0 mm		5.0 mm	
Roll dimension	1 x 10 m				
Roll weight	40 kg	50 kg		63 kg	
Rolls per pallet	28 Rolls	23 Rolls		16 Rolls	
Top face	Film	Film	Slate	Film	Slate
Underface	Thermofusible film				

<b>CONFORMITY</b>	<b>UEAtc MOAT: 31 - 1984 TESTED IN ACCORDANCE WITH ASTM D5147</b>
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## TECHNICAL PROPERTIES

PROPERTY	STANDARDS	SOPRALENE FLAM 180
Softening point (Bitumen mass)	ASTM D 36	> 130 °C
Penetration @ 25 °C (Bitumen mass)	ASTM D 5	25 - 35 dmm
Tensile strength, MD / CMD	EN 12311 - 1	900 / 700 N / 5 cm
Elongation, MD / CMD	EN 12311 - 1	45 / 50 %
Tensile strength, MD / CMD	ASTM D 5147	15 / 11 KN / m
Elongation, MD / CMD	ASTM D 5147	55 / 55 %
Flow resistance at elevated temp.	EN 1110	105 °C
Dimensional stability	EN 1107	≤ 0.5 %
Resistance to static puncture	EN 12730	L <sub>4</sub> ( 25 kg ) *
Resistance to dynamic puncture	UEAtc	I <sub>4</sub> **
Compound stability @ 120 °C	ASTM D 5147	No failure
Tear strength, MD / CMD	ASTM D 5147	550 / 400 N
Resistance to tearing, MD / CMD	EN 12310 - 1	200 / 200 N
Puncture resistance	ASTM E 154	850 N
Shear resistance of joints	EN 12317 - 1	≥ 600 N / 5 cm
Fatigue resistance, 500 cycles @ 0 °C	UEAtc MOAT 27, 30, 31	Pass
Creeping resistance @ 70 °C on a substrate inclined at 45° for 192 hrs.	UEAtc MOAT 27, 30, 31	No flow
Ageing under UV for 2008 hrs	UEAtc MOAT 27, 30, 31	No deterioration
Durability, Watertightness	EN 13969 : 2004	Conform
Water resistance for 28 days	UEAtc MOAT 27, 30, 31	Reinforcement does not separate from coating
Water tightness @ 24 hrs.	EN 1928 : 2000	> 60 kpa
Water absorption @ 24 hrs.	ASTM D 570	< 0.5 %
Resistance to impact	EN 12691	> 1000 mm
Chemical resistance	UEAtc MOAT 27, 30, 31	Resistant
Resistance to hydrostatic pressure	ASTM D5385	> 70 m

Note: All products manufactured by SOPREMA comply with the description and properties indicated in the technical data sheet that was current at the date of manufacture.

Data is represented by average values, unless noted otherwise.

All values are nominal, tolerance ± 20 %

\* L<sub>3</sub> for -5 & -10 °C cold flexibilities

\*\* I<sub>3</sub> for -5 & -10 °C cold flexibilities

## TESTING AND CERTIFICATIONS



## SUSTAINABILITY AND ENVIRONMENT

