

# SOPRALENE FLAM 180-40 AR

## Description

**SOPRALENE FLAM 180-40 AR** is a flexible SBS elastomeric bitumen waterproofing membrane with non-woven polyester reinforcement. The topside is protected by slate chippings and the underside by a thermofusible film.

## Composition

	<b>SOPRALENE FLAM 180-40 AR</b>
Reinforcement	Non-woven polyester (180 g/m <sup>2</sup> )
Binder	Elastomeric bitumen*: blend of selected bitumen and SBS thermoplastic polymers.
Thickness	≥ 4,0 mm 4,7 mm (on slates)
Topside	Slate chippings
Underside	Thermofusible film
Overlapping side of membrane	Thermofusible film, width: ≥ 85 mm

\* According to UEAtc directives concerning the normalisation of waterproof elastomeric SBS bitumen coverings.

## Characteristics

	<b>SOPRALENE FLAM 180-40 AR</b>	
	MDV <sup>1</sup>	MLV <sup>2</sup>
Tensile Strength (EN 12311-1)		
-longitudinal	800 N/ 5cm	550 N/ 5cm
-transversal	650 N/ 5cm	500 N/ 5cm
Elongation (EN 12311-1)		
-longitudinal	45 %	30 %
-transversal	55 %	30 %
Resistance to nail tearing (EN 12310-1)		
-longitudinal	200 N	150 N
-transversal	200 N	150 N
Low temperature flexibility (EN 1109)	No observed cracks at - 20°C	No observed cracks at - 16°C
Flow resistance at high temperature (EN 1110)	105°C	100°C
Dimensional stability (EN 1107-1)	0,3 %	0,5 %
Static puncture resistance (NF P 84-352)	25 kg (L4)	
Dynamic puncture resistance (NF P 84-353)	> 10 Joules (D2)	

<sup>(1)</sup>MDV = Manufacturer's determined value: An arithmetic mean value of a minimum number of independent measurements.

<sup>(2)</sup>MLV = Manufacturer's limiting value: Minimum or maximum value as started by the manufacturer to be met during testing of type, internal quality control or external supervision with a confidence level of 95 %.

## Packaging

	<b>SOPRALENE FLAM 180-40 AR</b>
Roll dimensions	8 m x 1 m
Roll weight	about 45 kg
Standard colours	Black, Grey, Matisse Brown, Gaugin red, Véronèse Green, Cézanne Siena, Chagall Grey, Van Gogh Ochre.
Storage	Upright on pallet with plastic wrapping, protected against moisture

Roll lengths are given with a tolerance of  $\leq 1\%$ . Roll can be cut in two parts. In this case, the shortest length is 3 meters and the total length is equal to the nominal length.  
Width of roll is given with a tolerance of 1% (UEAtc).  
Rolls must be stored upright on flat ground. Pallets may be stacked to a maximum of two high with separating layer.  
During storage, protect the rolls against moisture. In cold weather, we recommend that the rolls be kept at a minimum temperature of  $+ 2^{\circ}\text{C}$  ( $+ 36^{\circ}\text{F}$ ) for at least 5 hours before installation.

## User application

**SOPRALENE FLAM 180-40 AR** is to be used as a finishing layer for elastomeric bitumen waterproofing membrane.

All the applications are described in the French Standards DTU, Technical Guidelines or Technical Approvals. For further details refer to specific technical information.

## Installation

**SOPRALENE FLAM 180-40 AR** must be applied only by heat welding or torch-on techniques. Hot bitumen must not be used in the process.

## Special indications

### Hygiene, health and environment:

The product does not contain any substance likely to be detrimental to health or to environment and complies with generally admitted Health and Safety Requirements. For more information, please refer to relevant Safety Data Sheet.

### Quality control:

**SOPREMA** has always attached the highest importance to Quality Control.


For this reason, we operate an independently monitored Quality Assurance System in compliance with **BS EN ISO 9001: 2008**, certified by **BSI Management System**.



## CE Marking

**SOPRALENE FLAM 180-40 AR** is a flexible membrane for roof waterproofing and complies with EN 13707, thereby bearing the CE standard marking.

General information concerning the CE marking, expressed in MLV, can be found below. For more information, please refer to the relevant Declaration of Conformity.

 <b>CSTB 0679</b>	
<p><b><u>SOPRALENE FLAM 180-40 AR</u></b>  <b>SOPREMA S.A.S.</b>          B.P. 60121 – 14, rue de St-Nazaire          67025 STRASBOURG CEDEX 1  <b>06</b>          Certificate of Factory Production Control          0679-CPD-0130 / 0679-CPD-0133          0679-CPD-0343 / 0679-CPD-0393          0679-CPD-0602</p>	
<p><b><u>EN 13707</u></b>          Membrane is composed of elastomeric bitumen and a non-woven polyester reinforcement. Topside is protected with slate chippings and underside is covered with a thermofusible film.          Dimensions : 8 m x 1 m x 4,7 mm.</p> <p>Must not be applied with hot bitumen.</p> <p>Top layer or single layer.</p>	
Classification for external fire exposure (EN 13501-5)	NPD
Reaction to fire (EN 13501-1)	E
Tensile Strength in longitudinal direction (EN 12311-1)	550 N/ 5cm
Tensile Strength in transversal direction (EN 12311-1)	500 N/ 5cm
Elongation in longitudinal direction (EN 12311-1)	30 %
Elongation in transversal direction (EN 12311-1)	30 %
Low temperature flexibility (EN 1109)	- 16°C
Flow resistance at high temperature (EN 1110)	100°C
Flexibility (EN 1109), after ageing test (EN 1296)	0°C
Heat resistance (EN 1110), after ageing test (EN 1296)	90°C
Static puncture resistance (EN 12730)	20 kg
Choc resistance (EN 12691)	2000 mm
Watertightness (EN 1928)	Conform
Shear resistance of joints (EN 12317-1)	500 N / 5cm