

Formerly known as XPRESS ISO

# 3-1 SOPRASMART ROCK

TECHNICAL DATA SHEET 200316SCANE

(supersedes 190923SCANE)



WATERPROOFING  
INSULATION

APPLICATIONS

ROOFS

## DESCRIPTION

3-1 SOPRASMART ROCK is a high performance insulating base sheet panel. It is composed of SBS modified bitumen membrane with a non-woven polyester reinforcement and a surface covered with a thermofusible plastic film. This membrane is factory-laminated on a high density mineral wool (stone wool) support panel and on a polyisocyanurate insulation board (SOPRA-ISO).

## INSTALLATION

### BITUMEN

3-1 SOPRASMART ROCK panel is installed in a bed of hot bitumen applied with a mop.

### ADHESIVE

3-1 SOPRASMART ROCK panel is adhered with DUOTACK adhesives\*.

### MECHANICALLY FASTENED

3-1 SOPRASMART ROCK panel is mechanically fastened to steel deck with SOPREMA screws and plates according to the required fastening pattern\*.

Mechanical fasteners must be installed on the distinctive line of the membrane side selvedge.

On a steel deck, fasteners must be installed on the steel deck top flanges. Install membranes perpendicular to the steel deck ribs.

\*For more details about the required number of adhesive or mechanical fasteners, consult the Wind Uplift Resistance Testing reports according to Canadian standard CSA A123.21 or publications according to FM 4470 (RoofNav Database) including recommendations for corners and perimeters listed in the PLPDS 1-29 from Factory Mutual.

The side lap joints have a **DUO SELVEDGE**. The first part is self-adhered and the last part of the joint is sealed with a propane torch or a hot-air welder. The use of **SOPRAMATIC** automatic hot-air welder will increase the speed and quality of the sealing.

Align all end laps without offsetting them and cover them with a **SOPRALAP** membrane centred on the joint.

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

## PACKAGING

Specifications	3-1 SOPRASMART ROCK
Total thickness (Membrane & boards)	78.2 mm (3 <sup>3</sup> / <sub>32</sub> in)
Reinforcement of the membrane	Non-woven polyester
Support panel dimensions (HD mineral wool)	0.914 x 2.44 m (3 x 8 ft)
Insulation panel dimensions (Polyiso)	
Total weight	7.33 kg/m <sup>2</sup> (1.74 lb/ft <sup>2</sup> )
Selvedge width	90 mm (3.5 in)
Surface	Thermofusible plastic film
Underface	Polyisocyanurate

(All values are nominal)



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## PROPERTIES

As per CSA A123.23-15, Type B, Grade 3.

Properties	MEMBRANE	
	BEFORE Heat Conditioning	AFTER Heat Conditioning
Strain energy, min MD/XD At 23 °C ± 2 °C (73.4 °F ± 3.6 °F) At -18 °C ± 2 °C (0 °F ± 3.6 °F)	6.5/6.5 kN/m (37/37 lbf/in) 8.0/4.0 kN/m (46/23 lbf/in)	5.5/5.5 kN/m (31/31 lbf/in) 3.1/3.1 kN/m (18/18 lbf/in)
Peak load, min MD/XD At 23 °C ± 2 °C (73.4 °F ± 3.6 °F) At -18 °C ± 2 °C (0 °F ± 3.6 °F)	15/11 kN/m (86/63 lbf/in) 22/17 kN/m (126/97 lbf/in)	14/10 kN/m (80/57 lbf/in) 19/11 kN/m (108/63 lbf/in)
Elongation at peak load, min MD/XD At 23 °C ± 2 °C (73.4 °F ± 3.6 °F) At -18 °C ± 2 °C (0 °F ± 3.6 °F)	50/60 % 30/30 %	15/50 % 7/21 %
Ultimate elongation, MD/XD At 23 °C ± 2 °C (73.4 °F ± 3.6 °F)	55/70 %	45/45 %
Dimensional stability, max MD/XD	±0.5/±0.1 %	
Low temperature flexibility, max MD/XD	-18/-18 °C (0/0 °F)	-18/-18 °C (0/0 °F)
Compound stability at 102 °C (216 °F)	121/121 °C (250/250 °F)	
Resistance to puncture	Pass	

(All values are nominal)

Properties	Standards	HD MINERAL WOOL (stone wool)
Board thickness	-	25.4 mm (1 in)
Thermal Resistance R-Value (RSI)	ASTM C518 (C177)	0.70 m²K/W (4.0 hr.ft².F/Btu)
Reaction to fire	ASTM E84	Smoke spread: 0 Smoke develop index: 0
Water Absorption	ASTM C209	< 1 %
Compressive Strength	ASTM C165	75 kPa (11 psi)
Dimensional stability : Linear Shrinkage	ASTM C356	1.1% @ 650 °C (1200 °F)

(All values are nominal)



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Properties	Standards	POLYISOCYANURATE INSULATION BOARD (SOPRA-ISO)
Board thickness	-	50.8 mm (2 in)
Thermal Resistance (LTTR) 50.8 mm (2 in) @ 24°C (75°F)	CAN/ULC S704-11	2.01 RSI (R – 11.4)
Compressive Strength	ASTM D 1621	138 kPa (20 psi)
Density	ASTM D 1622	32 kg/m <sup>3</sup> (2.0 lb/ft <sup>3</sup> )
Linear Dimensional Stability	ASTM D 2126	< 0.5 %
Water Absorption	ASTM C 209 ASTM D 2842	< 1.0 % < 3.5 %
Flame Spread*	ASTM E 84	40 - 60
Tensile Strength	ASTM D 1623	35 kPa (> 730 lb/ft <sup>2</sup> )

\*The numerical ratings as determined by ASTM Test Method E 84 are not intended to reflect hazards presented by this or any other material under actual fire conditions.  
(All values are nominal)

## STORAGE AND HANDLING

3-1 SOPRASMART ROCK insulating base sheet panels must be stored on a flat substrate and sheltered from inclement weather. If the products are stored outdoors, cover them with an opaque protection cover.



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