

Formerly known as SOPRASMART ISO HD 180

# 2-1 SOPRASMART ISO HD

TECHNICAL DATA SHEET 200316SCANE

(supersedes 160915SCANE)



WATERPROOFING  
ACCESSORY

APPLICATIONS

ROOFS

## DESCRIPTION

2-1 SOPRASMART ISO HD is a high performance base sheet panel 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 polyisocyanurate insulation support panel (SOPRA-ISO PLUS HD).

## INSTALLATION

### BITUMEN

2-1 SOPRASMART ISO HD panel is installed in a bed of hot bitumen (SEBS or oxidized) applied with a mop.

### ADHESIVE

2-1 SOPRASMART ISO HD panel is adhered with DUOTACK adhesives\*.

### MECHANICALLY FASTENED

2-1 SOPRASMART ISO HD panel is mechanically fastened to steel deck with SOPREMA screws and plates according to the required fastening pattern\*.

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

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.

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

\*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.

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

## PACKAGING

Specifications	2-1 SOPRASMART ISO HD	
Thickness of the membrane	2.2 mm (87 mils)	Total thickness: 14.9 mm (0.6 in)
Thickness of the support panel	12.7 mm (0.5in)	
Membrane reinforcement	Non-woven polyester	
Support panel dimensions	0.914 x 2.44 m (3 x 8 ft) 0.914 x 2.44 m (3 x 16 ft)	
Total weight	4.15 kg/m <sup>2</sup> (0.85 lb/ft <sup>2</sup> )	
Selvedge width	90 mm (3.5 in)	
Surface	Thermofusible film	
Underface	Polyisocyanurate high density	

(All values are nominal)



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

TDS\_2-1\_SOPRASMART\_ISO\_HD.indd

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WATERPROOFING  
COMPLEMENTARY PRODUCT

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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 POLYISOCYANURATE SUPPORT PANEL (SOPRA-ISO PLUS HD)
Thermal resistance 12.7 mm (1/2 in) @ 24 °C (75 °F)	ASTM C518	RSI 0.44 (R-2.5)
Compressive strength	ASTM D1621	550 to 759 kPa (80 to 110 psi)
Dimensional stability	ASTM D2126	< 0.5 % linear change
Water absorption	ASTM C209	< 3 % volume
Resistance to mold	ASTM D3273	Pass

(All values are nominal)

## STORAGE AND HANDLING

2-1 SOPRASMART ISO HD 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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