

Formerly known as SOPRASMART ISO HD 180 ISO SANDED

3-1 SOPRASMART ISO HD SANDED

TECHNICAL DATA SHEET 200316SCANE

(supersedes 190809SCANE)



WATERPROOFING
INSULATION

APPLICATIONS

ROOFS

DESCRIPTION

3-1 SOPRASMART ISO HD SANDED is a high performance insulating base sheet panel. It is composed of SBS modified bitumen membrane with a non-woven polyester reinforcement and a sanded surface. This membrane is factory-laminated on a high density polyisocyanurate insulation support panel (SOPRA-ISO PLUS HD) and on a polyisocyanurate insulation board (SOPRA-ISO).

INSTALLATION

BITUMEN

3-1 SOPRASMART ISO HD SANDED panel is installed in a bed of hot bitumen (SEBS or oxidized) applied with a mop.

ADHESIVE

3-1 SOPRASMART ISO HD SANDED panel is adhered with DUOTACK adhesive*.

MECHANICALLY FASTENED

3-1 SOPRASMART ISO HD SANDED 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 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 STICK** membrane centred on the joint. Pre-coat the surface to be covered with **ELASTOCOL STICK** primer.

* 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	3-1 SOPRASMART ISO HD SANDED	
Thickness of the membrane	2.2 mm (87 mils)	Total thickness: 65.7 mm (2.6 in)
Thickness of the support panel	12.7 mm (½ in)	
Thickness of the insulation board*	50.8 mm (2 in)	
Membrane reinforcement	Non-woven polyester	
Support panel dimensions (Polyiso HD)	0.914 x 2.44 m (3 x 8 ft)	
Insulating panel dimensions (Polyiso)	0.914 x 4.88 m (3 x 16 ft)	
Total weight	5.8 kg/m ² (1.2 lb/ft ²)	
Selvedge width	90 mm (3,5 in)	
Surface	Sanded	
Underface	Polyisocyanurate	

*Others thicknesses available upon request.
(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_3-1_SOPRASMART_ISO_HD_SANDED.indd

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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 (R-Value) at 24 °C (75 °F)	ASTM C518	RSI 0.44 (R-2.5)
Compressive strength	ASTM D1621	550 à 759 kPa (80 à 110 psi)
Dimensional stability	ASTM D2126	< 0.5 % linear change
Water absorption	ASTM C209	< 3 % volume
Resistance to mold	ASTM D3273	Pass

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Properties	Standards	POLYISOCYANURATE INSULATION BOARD (SOPRA-ISO)
Résistance thermique (LTTR) 50,8 mm (2 po) @ 24°C (75°F)	CAN/ULC S704-11	2,01 RSI (R - 11,4)
Compressive Strength	ASTM D1621	138 kPa (20 psi)
Density	ASTM D1622	32 kg/m ³ (2.0 lb/ft ³)
Linear Dimensional Stability	ASTM D2126	< 0.5 %
Water Absorption	ASTM C209 ASTM D2842	< 1.0 % < 3.5 %
Flame Spread*	ASTM E84	40 - 60
Tensile Strength	ASTM D1623	35 kPa (> 730 lb/ft ²)

*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 ISO HD SANDED 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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