

## SOPRASTAR FLAM WF

### Description:

**SOPRASTAR FLAM WF** is an SBS modified bitumen cap sheet membrane with a composite reinforcement. The top surface has an engineered multi-ply white film. The white surface film has a high solar reflective index (SRI) which helps cool down the surface temperature of the roofing system by reflecting the sun rays and consequently reducing the urban heat island effect.

### Advantages:

- **SOPRASTAR** membranes contain **no coatings**.
- The white film provides a highly reflective surface which contributes in the reduction of the urban heat island effect.

### Installation:

**SOPRASTAR FLAM WF** is installed by heat-welding and can be used with any of **SOPREMA's** high performance base sheets such as **SOPRAPHIX**, **COLVENT**, **SOPRAPLY**, as well as with its composite panels **XPRESS BOARD**, **XPRESS EPS** and **XPRESS ISO** products.

### LEED<sup>®</sup> Solutions:

The following are Soprema's solutions using **SOPRASTAR FLAM WF** membrane to meet the requirements of the Canadian Green Building Council's (CaGBC) LEED<sup>®</sup> credit SS7.2 regarding heat island. These are based on information provided by the CaGBC in their document entitled: "Reference Guide Addendum LEED<sup>®</sup> Canada-NC v1.0 – September 2007".

#### **For Steep-Slope (> 2:12)**

LEED<sup>®</sup> defines "steep-slope" as a slope greater than 2:12. For this type of roof the SRI requirement is 29\*. The **SOPRASTAR FLAM WF** SRI value is 96 which exceeds the steep slope requirements of credit SS7.2.

#### **For Low Slope (< 2:12)**

LEED<sup>®</sup> defines "low-slope" as a slope less than 2:12. The SRI (Solar Reflective Index) requirement is 78\*. The **SOPRASTAR FLAM WF** SRI value is 96 which exceeds the low slope requirements of credit SS7.2.

#### **Combined Application with Sopranature**

A combination of **SOPRANATURE**, Soprema's "green" (vegetated) roof system and **SOPRASTAR FLAM WF** membrane can also be done to meet credit SS7.2. For additional information consult your local **SOPREMA** representative at 1-877 MAMMOUTH.

\*On 75 % of the roof area.

**Reinforcements:** The reinforcement used in **SOPRASTAR FLAM WF** is heavy-duty composite reinforcement, covered by the ASTM D6162 standard.

## Membrane properties:

Properties	SOPRASTAR FLAM WF
Thickness (mm)	3.5
Dimension (m)	10 x 1
Weight (kg)	43
Top face	Factory-laminated highly reflective engineered multi-ply white film
Solar Reflective Index (SRI) <sup>1</sup>	96
Underface	Thermofusible plastic film
Storage	Upright on pallet
Application method	Heat-welded

<sup>1</sup> As per ASTM E1980, the reflectivity and emissivity were measured as per ASTM C1549 and C1371 respectively.

## System properties:

Properties	Standards	Minimum System Properties <sup>2</sup>
Strain energy, MD/XD (kN/m)	CAN/CGSB-37.56-M, 9th draft	8.5 / 7.0
Breaking strength, MD/XD (kN/m)	CAN/CGSB-37.56-M, 9th draft	16 / 14
Ultimate elongation, MD/XD (%)	CAN/CGSB-37.56-M, 9th draft	58 / 59
Tear resistance (N)	CAN/CGSB-37.56-M, 9th draft	472
Static puncture (N)	CAN/CGSB-37.56-M, 9th draft	350
Dimensional stability, MD/XD (%)	CAN/CGSB-37.56-M, 9th draft	0.1 / 0.1
Plastic flow (°C)	CAN/CGSB-37.56-M, 9th draft	105
Cold bending (°C) - initial - 90 days at 70°C	CAN/CGSB-37.56-M, 9th draft	-30 -30

(All values are nominal)

<sup>2</sup>System properties in the table are with **COLVENT** base sheet membrane. System properties increases with high performance base sheets such as **SOPRAPLY** and **SOPRAFIX** or with composite panels such as **XPRESS BOARD**, **XPRESS ISO** and **XPRESS EPS**.

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**NOTE:** SOPREMA INC. may modify the composition and/or utilisation of its products without prior notice. Consequently orders will be filled according to the latest specification.