SOPRA-SPF 200



APPLICATIONS

WALLS FOUNDATIONS

TECHNICAL DATA SHEET 240219SCANE

(supersedes 240118SCANE

DESCRIPTION

SOPRA-SPF 200 is a two-component, closed-cell, spray-applied polyurethane foam insulation system. Thanks to its eco-friendly HFO blowing agent, SOPRA-SPF 200 has a zero-ozone depletion potential (ODP) and a global warming potential (GWP) of 1. SOPRA-SPF 200 is designed for commercial, industrial and residential insulation applications, on exterior walls, interior walls and foundations. SOPRA-SPF 200 meets and exceeds the CAN/ULC-S705.1-15 standard.

SOPRA-SPF 200 meets GREENGUARD GOLD certification.

RECOMMENDED SUBSTRATES

This product can be used on most substrates such as masonry, concrete, wood, metal and gypsum, on the sanded surface of bitumen membranes.

SURFACE PREPARATION

The substrate to be sprayed on should be free of dirt, soil, grease, oil and moisture prior to the application SOPRA-SPF 200. Moisture in any form such as excessive relative humidity (> 85% R.H.), rain, fog, or ice will react chemically and will adversely affect the system performance and corresponding physical properties. Always check adhesion on substrate as per CAN/ULC-S705.2 Standard.

When applied to an air or air/vapor barrier membrane, metal bars must be mechanically fastened at the building perimeter, at membrane transitions, as well as around door and window frames and any other openings to prevent potential detachment of the membrane caused by the curing process of the insulation.

APPLICATION

Application temperatures: Maximum service temperature: UV resistance: $10 \,^{\circ}\text{C}$ to $40 \,^{\circ}\text{C}$ ($50 \,^{\circ}\text{F}$ to $104 \,^{\circ}\text{F}$) 82 $^{\circ}\text{C}$ ($180 \,^{\circ}\text{F}$) 6 months

SOPRA-SPF 200 must be applied with a spray gun. Mix the two components, SOPRA-SPF 200 RESIN and SOPRA-SPF ISO, with a 1:1 ratio by volume. Applicators should apply a maximum thickness of 50 mm (2 in) per pass (CAN/ULC S705.2). Allow the surface temperature to cool to 37 $^{\circ}$ C (99 $^{\circ}$ F) or ambient temperature, if higher than 37 $^{\circ}$ C (99 $^{\circ}$ F), between passes. The table below shows the waiting time before applying a further coat.

| Layer Thickness | Wait Time Before Additional Layers |
|--------------------------------------|---|
| First Layer, 2 inches | 15 minutes |
| Second Layer, 4 inches total | 45 minutes |
| Third Layer, 6 inches total | 75 minutes |
| Additional Layer, more than 8 inches | 24 hours between every additional layer |

EQUIPMENT

A mechanical purge spray gun is recommended for highest foam quality. It is dispensed through an approved transfer pump that can deliver a 1:1 ratio from the container to the proportioner. Hose heaters should be set to deliver $35\,^{\circ}$ C to $46\,^{\circ}$ C ($95\,^{\circ}$ F to $115\,^{\circ}$ F) material to the spray gun.

Recommended spraying pressure: 1,000 to 1,500 psi (69 to 103 bar).









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REACTIVE PROFILE

| Cream Time | Gel Time | Tack Free Time | Rise Time |
|------------|---------------|----------------|-------------|
| 0-1 second | 3.5-4 seconds | 6-7 seconds | 6-7 seconds |

RESTRICTIONS

SOPRA-SPF 200 may only be installed by a certified installer as per ISO 17024 SPF and CAN/ULC S705.2 Standards. Extreme care must be taken when removing and reinstalling transfer pumps so as not to interchange the two components.

If the product is below storage temperatures, the increased viscosity of the components may cause pump cavitation resulting in inadequate SPF application. If the product is above storage temperatures, there may be a loss of blowing agent resulting in diminished yield.

SOPREMA recommends covering the insulation as soon as possible after spraying and limiting its exposure to less than 6 months.

SOPRA-SPF ISO (Part A) and SOPRA-SPF 200 RESIN (Part B) must ALWAYS be used together and never mixed with products from another supplier. Mixing with products from another supplier can alter the properties and compromise the performance of the product.

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

GENERAL INFORMATION

| Specifications | | SOPRA-SPF 200 | |
|--|--|----------------------------------|--|
| Colour | | Grey | |
| Hose temperature (A and B) | | 35 °C to 46 °C (95 °F to 115 °F) | |
| Mix ratio parts | | 1:1 | |
| Specific gravity, at 25 °C (77 °F) | Part A ⁽¹⁾ Part B ⁽²⁾ | 1.24 kg/L 1.19 kg/L | |
| Viscosity, Brookfield, at 25 °C (77 °F) | Part A ⁽¹⁾ Part B ⁽²⁾ | 250 cP 380 cP | |

(All values are nominal)

(1): Part A: SOPRA-SPF ISO (2): Part B: SOPRA-SPF 200 RESIN

WEIGHT

| Dimensions | | SOPRA-SPF 200 |
|------------|--|--|
| Drum | Part A ⁽¹⁾ Part B ⁽²⁾ | 227 kg (500 lb) 227 kg (500 lb) |
| Tote | Part A ⁽¹⁾ Part B ⁽²⁾ | 1 250 kg (2 756 lb) 1 250 kg (2 756 lb) |

(All values are nominal)

(1): Part A: SOPRA-SPF ISO

(2): Part B: SOPRA-SPF 200 RESIN











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PROPERTIES

SOPRA-SPF 200 meets and exeeds CAN/ULC-S705.1-15 standard.

| Properties | | Standards | SOPRA-SPF 200 |
|--|--|-----------------|---|
| Density | | ASTM D1622 | 34,9 kg/m³ (2.2 lb/ft³) |
| Long term thermal resistance | 50 mm 75 mm 100 mm | CAN/ULC-S770-09 | 1.84 RSI (R-10.5) 2.82 RSI (R-16.0) 3.87 RSI (R-22.0) |
| Water vapour permeance | 25 mm 50 mm | ASTM E96 | 57.9 ng/Pa·s·m² (1.01 perm) 31 ng/Pa·s·m² (0.54 perm) |
| Fungi resistance | | ASTM C1338 | No growth |
| Dimensional 28 da | ays at -20 °C (- 4 °F) ays at 80 °C (176 °F) (158 °F) and 97% RH | ASTM D2126 | - 0.7% change of volume - 1.5% change of volume 0.4% change of volume |
| Tensile strength | | ASTM D1623 | 308 kPa (44.67 psi) |
| Compressive strength | | ASTM D1621 | 225 kPa (32.63 psi) |
| Air permeance | 25 mm | ASTM E2178 | < 0.0002 L/s•m² (< 0,00004 cfm/ft²) |
| Water absorption | | ASTM D2842 | 0.3% by volume |
| Open cell content | | ASTM D6226 | 6.4% |
| Time before occupancy | | CAN/ULC-S774 | 25 hours |
| Surface burning characteristics, ⁽¹⁾ flame spread | | CAN/ULC-S127 | 265 |
| Surface burning characteristics, ⁽¹⁾ Flame spread rating Smoke developed classification | | CAN/ULC-S102 | 265 435 |

(All values are nominal)

(1): These numerical flame spread values are not a true reflection on how this or any material will perform in actual fire conditions.

Notes: - SOPRA-SPF 200 has been tested by an independent laboratory and evaluated by the Canadian Construction Materials Centre (CCMC #14414-L) and Underwriters Laboratories (ULC ER-R40724).





⁻ The aged thermal resistance after 90 days of SOPRA-SPF 200 as per ASTM C518 is RSI-2.4 (R-13.9) for products that are 50 mm (2 in) thick.

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STORAGE AND HANDLING

SOPRA-SPF 200 must be stored between 15 °C and 24 °C (60 °F to 75 °F) in a dry and well-ventilated area.

It is important to condition the product at temperatures between 20 °C and 25 °C (68 °F to 77 °F) before and during the application. If this is not possible, the conditioning of the product must be done 24 hours before the application for the drums, and 48 hours for the totes. Product temperature should be checked with a thermometer or an infrared gun.

Pressure inside the container may increase to the point of rupture if stored under direct sun or at temperatures over 26 °C (79 °F). These conditions may also affect the quality of the product.

Do not configure the equipment to recirculate SOPRA-SPF 200 components from proportioner back into the containers. Do not recirculate or mix other supplier components into SOPRA-SPF 200 containers.

Shelf life of SOPRA-SPF ISO (Part A): 12 months Shelf life of SOPRA-SPF 200 RESIN (Part B): 6 months

For more information, refer to the instructions on the container label and relevant safety data sheet (SDS).





