

## DESCRIPTION

**Comfort Seal** is an Open-Cell Light Density Spray Polyurethane Foam insulating material that has been tested by an independent laboratory and evaluated by the **Underwriters Laboratories (ULC ER-R40655-01)**. It complies with the CAN/ULC-S712.1-17 “Standard for Thermal Insulation – Light Density, Spray Applied Semi-Rigid Polyurethane Foam, Light Density – Material Specification.”

**Comfort Seal** must be applied by CALIBER licensed installers under the application standard CAN/ULC S712.2.

**Comfort Seal** is a fully water blown foam system. Can be used for residential, industrial, and institutional building application where proper insulation is in need.

**Comfort Seal** also creates a bond to almost every kind of construction material on market. It can be applied to walls, roof, rim joists and most difficult space. **Comfort Seal** has great sound absorption for sound insulation.

**Comfort Seal** is a spray applied, semi-rigid polyurethane light density foam insulation. The site sprayed foam system consists of two components, isocyanate and resin. The colour of the cured foam is **Milky White**.

**Comfort Seal** elements are under the UL quality audit program where UL/ULC Field Engineering staff audit material manufacturing facilities, details of the product are on file at ULC and are described by **Comfort Seal**.

## TYPICAL PHYSICAL PROPERTIES

| Physical Properties   | Result                       | Standard               |
|---|------------------------------|------------------------|
| Apparent Core Density   | 10kg/m <sup>3</sup>          | ASTM E1622-14          |
| Thermal Resistance at 50 mm (Day 1), m <sup>2</sup> K/W         | 1.33                         | ASTM C518 or ASTM C177 |
| Thermal Resistance at 50 mm (Day 90), m <sup>2</sup> K/W        | 1.33                         |                        |
| R-Value   | 3.9 / inch                   | CAN/ULC S770-09        |
| Open Cell Content   | 97%                          | ASTM D6226-15          |
| Water Absorption  | 30%                          | ASTM D2842             |
| Water Vapour Permeance  | 848 Pa.s.m <sup>2</sup>      | ASTM E96/E96M-16       |
| Dimensional Stability (after 28 days)                           |                              |                        |
| Volume % Change at:   |                              |                        |
| -20°C   | 0                            | ASTM D2126-15          |
| 80°C  | -10                          |                        |
| 70°C, 97 ± 3% RH  | -12                          |                        |
| Flame Spread Value (FSV)  | 415                          | CAN/ULC S102-18        |
|   | 210                          | CAN/ULC S127           |
| Air Permeance, L/s @ 75 Pa<br>(Mandatory material only testing) | 0.004 (L/s. m <sup>2</sup> ) | ASTM E2178-13          |
| Time of Occupancy (VOC)   | 24 hours                     | CAN/ULC S774:2020      |
| Fungi Resistance  | No Fungal Growth             | ASTM C1338             |

| Thickness<br>mm/inches | STC Value                       |  |
|------------------------|---------------------------------|--|
|                        | (Floor Joist – 2x10, OBS Board) | (Floor Joist - 2x12 TGI, OBS Board + 1/2" Plywood) |
| 3"                     | 38                              | 41   |
| 4"                     | 42                              | 46   |
| 5"                     | 48                              | 50   |
| 6"                     | 50                              | 53   |
| 7"                     | 54                              | 57   |
| 8"                     | 57                              | 59   |
| 9"                     | N/A                             | 60   |
| 9.5"                   | 58                              | N/A  |
| 10"                    | N/A                             | 63   |
| 11.5"                  | N/A                             | 66   |

## LIQUID COMPONENT PROPERTIES

| PROPERTIES                         | COMFORT SEAL              | ISOCYANATE-PM200          |
|------------------------------------|---------------------------|---------------------------|
| Shelf Life                         | 12 months                 | 12 months                 |
| Storage Temperature Recommendation | 10°C - 25°C (50°F - 77°F) | 10°C - 25°C (50°F - 77°F) |
| Net Weight                         | 200KG                     | 227KG / 250KG             |
| Colour                             | Milky White               | Brown                     |
| Viscosity at 25°C (77°F)           | 400-1200 cps              | 200±50 cps                |
| Specific Gravity at 25°C (77 °F)   | 1.05-1.15                 | 1.22-1.25                 |
| Ratio (parts by Volume)            | 100 (1 part)              | 100 (1 part)              |

## REACTIVE PROFILE

| CREAM TIME  | GEL TIME    | TACK FREE TIME |
|-------------|-------------|----------------|
| 0-2 seconds | 2-4 seconds | 5-7 seconds    |

## ADDITIONAL INFORMATION

| Physical Properties       | Description |
|---------------------------|-------------|
| Ultraviolet (UV) Exposure | 3 months    |

## RECOMENDED PROCESSING CONDITIONS

| Description                       | Parameters                  |
|-----------------------------------|-----------------------------|
| Heater Temperature                | 45°C - 65°C (113°F - 149°F) |
| Hose Temperature                  | 45°C - 65°C (113°F - 149°F) |
| Pressure                          | 800 – 1500 psi              |
| Substrate and Ambient Temperature | > 0°C (> 32°F)              |
| Moisture Content of Substrate     | < 19 %                      |

Do not apply **Comfort Seal** more than 300 mm (~12 inches) depth per pass to prevent excessive exotherm in the foam. Disregarding this, it could lead to scorching of the foam and in extreme cases has the potential for self-ignition.

**Comfort Seal** is combustible. A thermal barrier must be installed as per local building code requirements.

### Storage Recommendations

- **Comfort Seal** should be stored in sealed containers, to avoid absorption of water vapour
- During transportation, avoid sunlight exposure
- Product should be stored in a ventilated space, away from light, water, and fire
- Before using the product, please fully agitate. It is recommended to use pneumatic agitator and agitate at least 30 min

### Safety Precautions

- Direct contact with **Comfort Seal** leads to eye and skin irritation
- Repeated inhalation of volatile gas will cause respiratory allergy- seek immediate medical treatment
- Always wear protective equipment when handling product-gloves, protective goggles, protective clothing
- If exposed to eyes: immediately rinse with water for at least 15 minutes
- If exposed to skin: wash with soapy water
- If swallowed: SEEK EMERGENCY MEDICAL TREATMENT IMMEDIATELY!

## TECHNICAL ASSISTANCE

[www.sdpu.ca](http://www.sdpu.ca)

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