

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 ³	ASTM E1622-14
Thermal Resistance at 50 mm (Day 1), m ² K/W	1.33	ASTM C518 or ASTM C177 CAN/ULC S770-09
Thermal Resistance at 50 mm (Day 90), m ² K/W	1.33	
R-Value	3.9 / inch	
Open Cell Content	97%	ASTM D6226-15
Water Absorption	30%	ASTM D2842
Water Vapour Permeance	848 Pa.s.m ²	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 (Mandatory material only testing)	0.004 (L/s. m ²)	ASTM E2178-13
Time of Occupancy (VOC)	24 hours	CAN/ULC S774:2020
Fungi Resistance	No Fungal Growth	ASTM C1338

Thickness mm/inches	STC Value (2x10, OBS Board)	STC Value (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	15°C - 25°C (59°F - 77°F)	15°C - 25°C (59°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) thickness 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** should not be left exposed and in close contact from heat emitting devices. 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

COMFORT SEAL is a Registered Trademark with permission by SHUNDA POLYURETHANE LTD

Address: 1200 Denison St, Markham, ON L3R 8G6

Tel: 905-754-0568 | **Toll Free:** 1-855-818-8288 | **Fax:** 905-754-0558

Website : www.sdpu.ca | **E-mail:** info@sdpu.ca

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