

CLOSED CELL FOAM SealTite™ One

SealTite One medium density, closed cell spray foam insulation is the HFO offering from Carlisle Spray Foam Insulation Canada to meet the strict requirements of the current CAN/ULC-S705.1-18 standard and CAN/ULC-S742 Air Barrier Assembly. Light Teal in colour, this foam stands out in both sprayability and technical performance with third party report from ULC R39311-03 and manufacture's Type III EPD for maximum LEED v4 points.

SealTite One utilizes zero HFC blowing agents and zero ozone-depleting substances. It is designed for use in commercial and residential construction applications that involve the National Building Code of Canada. SealTite One must be applied by certified installers that follow the CAN/ULC S705.2 program. Carlisle utilizes Caliber Quality Solutions Inc. to administer its Site Quality Assurance Program (SQAP).

SealTite One provides high R-values while also meeting requirements as a vapour barrier and air barrier. Other areas of application include, but not limited to, ABS, PVC, cPVC, metal, stainless steel, wood, concrete, and other substrates. SealTite One is available in two reactivities including: Winter and Regular.

For proper use of SealTite One spray foam, please refer to the CAN/ULC S705.2 Rigid Polyurethane Foam Medium Density Application standard.

TYPICAL PHYSICAL PROPERTIES:

Property	CAN/ULC S705.1 Requirements	Metric Value (Imperial)	Test
Core Density	> 28 kg/ m ³	37.9 kg/m ³ (2.36 lb/ft ³)	ASTM D1622
Compressive Strength	> 170 kPa	270 kPa (39 psi)	ASTM D1621
Tensile Strength	> 200 kPa	237 kPa (34 PSI)	ASTM D1623
Dimensional Stability	At -20C At 80C At 70C, 97% + 3% RH	-2/+5 -2/+8 -2/+14	< 0.3 < -0.5 < 5.8 ASTM 2126
Open Cell Content	< 10% by volume	3%	ASTM D2856
Water Absorption	< 4% by volume	< 3.4%	ASTM D2842
Water Vapour Permeance	< 60 ng/(Pa•s•m ²)	36 ng/Pa•s•m ²	ASTM E96
Air Barrier Assembly	< 0.02L/s.m ²		A1 Rated CAN/ULC S742
Air Barrier Assembly	< 0.02L/s.m ²		Passed ASTM E2357
Air Permeance	< 0.02 L/s @75 Pa (1.57 lb/ft ²)	0.0003	ASTM E2178
Fungi Resistance	No Growth	No Growth	ASTM C1338
Flame Spread	NA	< 100	CAN/ ULC S102
Flame Spread	< 500	< 250	CAN/ ULC S127
Flame Spread (Class 1)	FSI<25 SDI<450	Pass	ASTM E84
Volatile Organic Compounds (VOC)•	Declare	24 hours	CAN/ULC S774
Shelf Life	Declare		12 months





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THERMAL RESISTANCE*:

Thickness inches (mm)	R VALUE PER INCH °F • ft ² • hr/BTU • in	R Value Total At Thickness °F • ft ² • hr/BTU • in	RSI K • m ² /W
2 inches (50 mm)	6.5	13	2.3
3 inches (75 mm)	6.6	20	3.5
4 inches (100 mm)	6.7	27	4.7

ADVANTAGES:

- Low exotherm
- Quick successive passes
- Sets up fast and does not creep
- Low viscosity resin
- Great cold weather adhesion
- Best in class dimensional stability
- Zero ODP
- Low GWP
- Seamless insulation

APPLICATION INFORMATION:

STORAGE AND USE OF CHEMICALS: Cold A & B components can cause poor mixing, pump cavitation, or other process problems due to higher viscosity. Condition and maintain the liquid components in each drum to 64–86°F prior to use. Do not store in direct sunlight or weather. Keep drums tightly closed when not in use. Shelf life of resin (B component) is twelve months from date of manufacture.

SAFE HANDLING OF LIQUID COMPONENTS: When removing bungs from containers use caution, contents may be under pressure. Loosen bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. All individuals in contact with Polyurethane A-Component liquids should have access to and familiarize themselves to the SDS. Kit sizes are 454 kgs (227 kg A and 227 kg B).

APPLICATION GUIDELINES: 15–50 mm (½ inch to 2 inch) is the required thickness per pass of SealTite One as per CAN/ULC S705.2. Multiple passes can be applied to reach the desired thickness and insulation value. SealTite One can be sprayed in quick successive passes at 50 mm (2 in.) thick up to a maximum of 152 mm (6 in.) in one day. Long term exposed applications should be protected from UV exposure with the use of a protective coating (project examples are tank or exposed ducting related applications). No application requirements onto asphalt peel and stick membranes. Always follow CAN/ULC S705.2 guidelines for application limitations and protocol for residential and commercial applications.

Ambient Temperature guidelines for application of SealTite One:
(temperature will vary depending on substrate type, moisture and wind)

SealTite One Winter	-12°C to + 25°C (10°F to 77°F)
SealTite One Regular	+10°C to + 50°C (50°F to 122°F)

EQUIPMENT AND COMPONENT SETTINGS:

Polyurethane foam systems should be processed through 1:1 fixed ratio spray equipment. SealTite B-side (white drum) is connected to the resin pump and the Polyurethane A-Component (black or red drum) is connected to the isocyanate pump. The pre-heater should be set between 105°–125°F (40°C–52°C) and the hose heat is able to maintain within 5° F of the primary temperature right to the spray gun. Proportioner pumps must be able to maintain at least 1000 psi output during spray (dynamic spray pressure). SealTite One has varying reactivities of system depending on the ambient conditions with Winter reactivity being labeled as “SealTite One Winter” and Summer reactivity being “SealTite One Regular”.

CODE COMPLIANCE:

Carlisle SealTite One is tested to, and complies with, CAN/ULC-S705.1. Per the National Building Code of Canada and the provincial building codes, S705.1 compliant foam must be evaluated by a third party per the requirements of CAN/ULC-S705.2 in 4.2.11. Carlisle uses ULC Evaluation Reports as a way to distinguish itself above other spray applied foams in the Canadian market.

The National Building Code of Canada requires the use of ½ inch gypsum board, intumescent paint, or other approved thermal barriers over any exposed foamed plastic insulation for occupied spaces.

CODE COMPLIANCE:

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| • U301 | • U465 | • V499 |
| • U305 | • U493 | • V545 |
| • U397 | • V313 | • W496 |
| • U411 | • V324 | |
| • U425 | • V495 | |

*The R-value for SealTite One is derived from aging techniques of 180-day real time aging Long-Term Thermal Resistance (LTTR) per CAN/ULC S770-15.

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