

Insulthane® HC | High Compressive Strength Foam

Product Description

Insulthane® HC is a high compressive strength, structural spray polyurethane foam insulation. It delivers excellent resistance to heavy loads, moisture and extreme temperatures. Insulthane® HC is offered in a variety of compressive strengths suitable for commercial and industrial applications. The spray application creates a continuous insulation system that leaves no seams or other imperfections.

Appearance

The final cured product is cream in colour.

Recommended Applications

Residential Construction:

Under slab construction

Industrial Construction:

Highways, bridge abutments, utility lines, material retainment, geotechnical applications

Commercial Construction:

Plaza deck applications, parking decks, ice rinks, airport runways

Application Information

A minimum of 15mm per pass and maximum of 50mm as per the guidelines of the CAN/ULC-S705.2 application standard. Applying a second pass of foam, if required, can be performed after the first has cooled to a core temperature below 38°C (100°F). This process will be repeated for each additional pass. If spraying on heat sensitive materials (PEX pipe, low voltage wiring), spray maximum of 1" of foam and allow to fully cool before additional full thickness passes are added.

Foam must be protected from UV exposure within 90 days of application. Apply ccSPF insulation only when surfaces and ambient temperatures are within manufacturers' prescribed limits. Ambient humidity should be below 80% and substrate temperatures must be more than 3°C (5°F) above dew point to avoid condensation risks.

Substrate and ambient temperature limits: 5 - 50°C

A more in-depth application guide is available in the applicators manual. Please consult *Application Training Manual – Spray-Applied Polyurethane Foam*.

Technical Properties

Attribute	Test	Insulthane® HC 40	Insulthane® HC 60	Insulthane® HC 100
Aged R-Value @ 1"	ASTM C518	R 5.2 / RSI 0.92 (90 days)	R 5.0 / RSI 0.88 (180 days)	R 4.7 / RSI 0.83 (180 days)
Compressive Strength	ASTM D1621	338 kPa (49 psi)	448 kPa (65 psi)	703 kPa (102 psi)
Density	ASTM D1622	54 kg/m ³ (3.4 lbs/ft ³)	59 kg/m ³ (3.7 lbs/ft ³)	112 kg/m ³ (7 lbs/ft ³)
Tensile Strength	ASTM D1623	303 kPa (44 psi)	338 kPa (49 psi)	345 kPa (50 psi)
Flame Spread	CAN/ULC-S102	< 500 SD	< 500 SD	< 500 SD
Water Absorption	ASTM D2842	3%	1.3%	0.1%
Water Vapour Permeance @ 2"	ASTM E96	69.8 ng / Pa-s-m ² (1.22 perms)	62.4 ng / Pa-s-m ² (1.09 perms)	44.6 ng / Pa-s-m ² (0.78 perms)
Linear Dimensional Stability (28 days @ -40°C)	ASTM D2126	0%	0%	0.1%
Linear Dimensional Stability (28 days @ 80°C)	ASTM D2126	-1.3%	-1.2%	0.3%
Linear Dimensional Stability (28 days @ 70°C, 97 RH)	ASTM D2126	-3%	2.5%	0.6%
Colour	-	Cream	Cream	Cream