

TECHNICAL DATA SHEET

BOREAL ELITE is a medium density spray-applied rigid polyurethane foam system insulation formulated without ozone depletion substances (Zero ODS). BOREAL ELITE has a global warming potential (GWP) of 1, which is 99.9% lower than current HFCs used in this industry. This system is formulated with plant-based materials, recycled products and lavender extracts. The lavender extracts generate a pleasant and fresh odour during the application. BOREAL ELITE is lime green in colour.

BOREAL ELITE has been tested by an independent laboratory and accredited by CCMC. The finished product surpasses the CAN/ULC S705.1-15 material standard requirements. BOREAL ELITE must be applied in accordance with the CAN/ULC S705.2 application standard.



PHYSICAL PROPERTIES – CCMC # 14140-L				
PHYSICAL PROPERTIES	REQUIREMENTS		STANDARD	RESULT
	Min.	Max.		
Core Density	28.0 kg/m ³	---	ASTM D1622	32.0 kg/m ³ (2.0 lb/ft ³)
Compressive Strength	170 kPa	---	ASTM D1621	228 kPa (33.1 psi)
Tensile Strength	200 kPa	---	ASTM D1623	205 kPa (29.7 psi)
Water Vapour Permeance (50mm thickness)	60 ng(Pa.s.m ²)		ASTM E96 (Procedure A)	34 ng(Pa.s.m ²)
Surface Burning (flame spread index)	---	500	CAN/ULC S102-10	30
Surface Burning (flame spread index)	---	500	CAN/ULC S127-14	285
Fungi Resistance	No growth	---	ASTM C1338	No growth
Long Term Thermal Resistance				
Thickness 25 mm	Declared	---	CAN/ULC- S770-09	0.93 RSI
Thickness 50 mm	1.80 m ² *K/W	---		1.96 RSI
Thickness 75 mm	Declared	---		2.93 RSI
Thickness 100 mm	Declared	---		4.12 RSI
Air Permeance	---	0.02	ASTM E2178	0.0006 L/(s.m ²)
Recommended Time to Occupancy	1 day	30 days	CAN/ULC S774	1 day
Open Cell Content	---	10.0%	ASTM D6226 (Procedure 2)	2.8 %
Water Absorption (volume)	---	4.0%	ASTM D2842 (Procedure A)	0.6 %
Dimensional Stability			ASTM D2126 (28 days)	
	-2	+5	-20°C	-1 %
	-2	+8	80°C	+2 %
	-2	+14	70°C, 97% (RH±3%)	+13 %

PHYSICAL PROPERTIES – ADDITIONAL TESTING		
Air Barrier Systems	CCMC Masterformat 07 27 09.01	CCMC Report in process
Long Term Thermal Resistance (50mm)	CAN/ULC- S770-03	2.14 RSI (R 6.2/in)
Recycled Content	N/A	17.4 %
Renewable Materials Content	N/A	5.8 %
15 minutes wall assembly high heat	NBC, Article 3.2.3.8 Protection of Exterior Building Face, Sentence 2 CAN/ULC S101 15-minute Stay In Place test (Steel face – Cement board and stucco)	Met the requirements. Independent laboratory report available upon request.

LONG TERM THERMAL RESISTANCE (CAN/ULC S770-09)		
THICKNESS mm (in)	R-VALUE (ft ² .hr.°F)/Btu	RSI (m ² .K)/W
50.8 (2.00)	11.4	2.0
63.5 (2.50)	14.3	2.5
76.2 (3.00)	17.4	3.1
88.9 (3.50)	20.6	3.6
102.0 (4.00)	24.1	4.2
127.0 (5.00)	30.7	5.8
152.0 (6.00)	36.5	6.4
177.8 (7.00)	42.7	7.5
203.2 (8.00)	48.9	8.6

COMPONENT PRODUCT SPECIFICATIONS		
PROPERTIES	POLYMERIC ISOCYANATE A-2732	BOREAL NATURE ^{Elite} RESIN
Colour	Brown Liquid	Green Liquid
Viscosity at 25°C	150 – 250 cps	200 - 400 cps
Specific Gravity at 25°C	1.22 – 1.25	1.17 – 1.19
Shelf Life	12 months	6 months
Storage Temperature	10-38°C / 50-100°F	10-25°C / 50-77°F
Ratio (volume)	100	100

INSTALLATION GUIDELINES			
BOREAL NATURE ^{Elite}	Ambient Temperatures	Spray Temperatures	Minimum Spray Pressure
Summer	5°C to +35°C (41 to 95°F)	38 – 49°C (100 -120°F)	5516 kPa (800 psi)
Winter	-10°C to +15°C (14 to 59°F)	38 – 52°C (100-125°F)	5516 kPa (800 psi)

Processing conditions can vary depending on temperature, humidity, substrate, equipment, and other factors. It is the applicator's responsibility to process and apply Boreal Nature Elite within specification.

ADDITIONAL INFORMATION
<p>CAN/ULC S705.2 requires a maximum per pass thickness of 51mm (2 inches). Spraying thicker can result in changes to physical properties and a possible sudden ignition of the foam.</p> <p>Internal temperature of installed pass must be 29°C before installing subsequent passes. Maximum thickness during 24 hour period is 203mm (8 inches).</p> <p>Like all spray foam products, "Boreal Elite" is combustible. An approved thermal barrier must be installed in accordance with applicable building codes.</p> <p>The service temperature of "Boreal Elite" is between -60°C and 80°C.</p> <p>Recommended storage temperature of materials is from 10 to 25°C (50 to 77°F).</p>

HEALTH AND PERSONNAL PROTECTION
<p>Before handling these chemicals, please consult the Safety Data Sheet for the two components. Material Safety Data sheets on product components are available from Genyk Inc.</p>

The information contained herein is based on information available to Genyk Inc. The data is considered an accurate description of the product performance and is presented in good faith. However, Genyk Inc. disclaims any liability for incidental or consequential damages which may result from the inappropriate use of this product. It is the user's responsibility to thoroughly test the product in any application to determine performance, efficiency and safety. No information contained herein is to be considered as permission or recommendation to infringe on any patent or other intellectual property.

