

BOREAL NATURE ELITE

Boreal Nature Elite is a closed-cell, medium-density spray polyurethane foam insulation, formulated with environmentally responsible HFO blowing agents. The product is manufactured without ozone-depleting substances (Zero ODS) and contains negligible Global Warming Potential (GWP) substances.

Tested by independent laboratories, Boreal Nature Elite meets multiple compliance standards, including CAN/ULC S705.1.15 for insulation and vapour barrier, CCMC 07 26 23.01 for radon control, CCMC 07 27 09.01 for air barrier systems, ASTM E84 for Class One foam, and CAN/ULC S134 for fire-rated exterior walls.

PHYSICAL PROPERTIES - CCMC #14140-L			
PHYSICAL PROPERTIES	STANDARD	RESULT	
Core Density	ASTM D1622	2.0 lb/ft ³	32 kg/m ³
Compressive Strength	ASTM D1621	33.1 psi	228 kPa
Tensile Strength	ASTM D1623	29.7 psi	205 kPa
Water Vapour Permeance @50mm	ASTM E96-A	34 ng/Pa.s.m ²	
Surface Burning (flame spread index)	CAN/ULC S127-14	Less than 500	
Fungi Resistance	ASTM C1338	No growth	
Long Term Thermal Resistance Thickness 25 mm Thickness 50 mm Thickness 75 mm Thickness 100 mm	CAN/ULC- S770-09	0.93 RSI 1.96 RSI 2.93 RSI 4.12 RSI	
Air Permeance	ASTM E2178	0.001 L/(s.m ²)	
Recommended Time to Occupancy	CAN/ULC S774	25 hours	
Open Cell Content	ASTM D6226 (Procedure 2)	2.8 %	
Water Absorption (volume)	ASTM D2842 (Procedure A)	1.6 %	
Dimensional Stability	ASTM D2126 (28 days) -20°C 80°C 70°C, 97% RH (±3%)	-1 % +2 % +13 %	

PHYSICAL PROPERTIES – Additional testing		
Radon mitigation system	CCMC Masterformat 07 26 23.01	CCMC #14445-R
Air Barrier System	CCMC Masterformat 07 27 09.01	CCMC #14241-R
Fire Test of Exterior Wall Assemblies	CAN/ULC S134	Pass
Surface Burning Characteristics	ASTM E84	Class 1
15 minutes wall assembly high heat	NBC, Art. 3.2.3.8 Protection Exterior Building Face, Sentence 2 CAN/ULC S101 15-min. Stay In Place test.	Met the requirements on three different wall designs. Independent laboratory report upon request.
Initial Thermal Resistance *	ASTM C-518 (CAN/ULC S770) 10 days 23°C and 50% R.H.	2.49 RSI (R 7.2/in)
Re-Entry Time	ASTM D8445	1 hr (10 ACH)
Re-Occupancy Time	ASTM D8445	1 hr (10 ACH)

*Independent testing verified that Boreal Nature Elite R-value varies by less than 3% from the initial thermal resistivity value when samples were conditioned for 180 days. (23°C and 50% R.H)



RECYCLED AND RENEWABLE CONTENT

Recycled Content	17.4 %
Renewable Materials Content (Veg. oils)	5.8 %

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	5.4
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	ISOCYANATE - A-2732	RESIN - BOREAL NATURE ELITE
Colour	Brown Liquid	Green Liquid
Viscosity at 25°C	150 – 250 cps	280 - 420 cps
Specific Gravity at 25°C	1.22 – 1.25	1.17 – 1.23
Shelf Life	12 months	6 months
Storage Temperature	15-35°C / 59-95°F	15-25°C / 59-77°F
Ratio (volume)	100	100

INSTALLATION GUIDELINES

Boreal Nature Elite	Ambient Temperatures		Spray Temperatures		Minimum Spray Pressure
Summer	50°F to 95°F	10°C to 35°C	95°F to 120°F	35°C to 49°C	5516 kPa (800 psi)
Regular	32°F to 68°F	0°C to 20°C	95°F to 120°F	35°C to 49°C	
Winter	14°F to 50°F	-10°C to +10°C	100°F to 130°F	38°C to 55°C	

Additional Information

- Maximum thickness per pass must not exceed 50 mm (2 inches) due to excessive exothermic heat, which may ignite the foam in extreme cases.
- Two successive passes of 50 mm are possible. Wait 2 hours before a third pass, or until the internal foam temperature is below 37°C (100°F).
- Maximum installed thickness in 24 hours must not exceed 200mm (8 inches).
- Product is combustible and must be installed in accordance with applicable building codes.
- The service temperature is between -60°C and 80°C.
- Consult the Safety Data Sheet before handling the chemicals (available online).
- Temperature, humidity, equipment, substrate can vary installation parameters.
- In application vehicle, store components A and B between 18-24°C for best performance.

Accreditations & Certifications



Canadian Code Compliance



Radon Barrier



Air Barrier System



Control no. 5031115
Certified to: CAN/ULC S134



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