

DESCRIPTION

Kawartha 2000 is Closed-Cell Medium Density Spray Polyurethane Foam insulating material that has been tested by QAI organization and evaluated by the **Canadian Construction Materials Centre (CCMC) CCMC 14163-L**. It complies with the CAN/ULC-S705.1-15 “Standard for Thermal Insulation - Spray Applied Rigid Polyurethane Foam, Medium Density – Material Specification.” This product has achieved Class A rate under the International Building Code for flame spread.

Kawartha 2000 must be applied by CALIBER licensed installers under the application standard CAN/ULC S705.2. It is a low VOC emitting and low GWP (Global Warming Potential) <1 (Kg CO2 eq) material and it meets the requirements of the **GREENGUARD** and **GREENGUARD GOLD** certification. It can be used for residential, schools, healthcare facilities, industrial, and institutional building application where proper insulation is in need. **Kawartha 2000** also creates a bond to almost every kind of construction material on market. It can be applied to walls, roof, rim joists, crawl space foundations and most difficult space. It comes in two different formulations, which is Winter and Summer formulation. The colour of the cured foam is **Alpine Green**.

TYPICAL PHYSICAL PROPERTIES

| Physical Properties | Result | Standard |
|--|---------------------------|-----------------------------|
| Apparent Core Density | 35kg/m ³ | ASTM E1622-14 |
| Compressive Strength | 183kPa | ASTM D1621-16 |
| Tensile Strength | 216kPa | ASTM D1623-17 |
| Open Cell Content | 5% | ASTM D6226-15 |
| Water Absorption | 0.7% | ASTM D2842 |
| Water Vapour Permeance | 47 Pa.s.m ² | ASTM E96/E96M-16 |
| Dimensional Stability (after 28 days) Volume % Change at: | | |
| -20°C | -1 | ASTM D2126-15 |
| 80°C | 2 | |
| 70°C, 97 ± 3% RH | 6 | |
| Flame Spread Rating (FSR) | 15 (Class A) | CAN/ULC S102 & CAN/ULC S127 |
| Smoke Developed Classification | 445 (Class A) | CAN/ULC S102 & CAN/ULC S127 |
| Air Permeance, L/s @ 75 Pa (Mandatory material only testing) | 0.004 (s•m ²) | ASTM E2178-13 |
| Time of Occupancy (VOC) | 25 hours | CAN/ULC S774:2020 |
| Fungi Resistance | No Fungal Growth | ASTM C1338 |
| Service Temperature | | -20°C to 80°C |

LONG-TERM THERMAL RESISTANCE

Test Method: CAN/ULC S770-09

| Thickness mm/inches | R Value (ft ² *hr*°F/BTU) | RSI (m ² *K/W) |
|------------------------|---|------------------------------|
| 50/1.97 | 10.62 | 1.87 |
| 75/2.95 | 17.00 | 2.99 |
| 88.9/3.5 | 20.43 | 3.60 |
| 102/4 | 24.02 | 4.23 |
| 127/5 | 31.02 | 5.46 |
| 152/6 | 38.02 | 6.70 |
| 177.8/7 | 45.11 | 7.94 |
| 203/8 | 52.40 | 9.23 |
| 228.6/9 | 60.02 | 10.57 |

REACTIVE PROFILE

| CREAM TIME | GEL TIME | RISE TIME |
|-------------|-------------|-------------|
| 0-1 seconds | 2-3 seconds | 4-5 seconds |

ADDITIONAL INFORMATION

| Physical Properties | Description |
|---------------------------|-------------|
| Ultraviolet (UV) Exposure | 3 months |

LIQUID COMPONENT PROPERTIES

| | |
|------------------------------------|---------------------------|
| Shelf Life | 6 months |
| Storage Temperature Recommendation | 10°C - 25°C (50°F - 77°F) |
| Drum Mass | 248KG/246.5KG |
| Colour | Alpine Green |
| Viscosity at 25°C (77°F) | 200-400 cps |
| Specific Gravity at 25°C (77 °F) | 1.05-1.15 |
| Ratio (parts by Volume) | 100 (1 part) |

INSTALLATION GUIDELINES

| | |
|---|--|
| Substrate & Ambient Temperature | 0°C to 35°C (32°F to 95°F) |
| Proportioner Temperature (Side A and B) | 35°C to 50°C (95°F to 122°F) |
| Hose Temperature | 35°C to 45°C (95°F to 113°F) |
| Pressure | 900psi to 1500psi (62Kpa to 103Kpa) |
| Humidity Level | < 80% (Care should be taken if it is > 80%). |

APPLICATION

In accordance with National Building Code of Canada CAN/ULC S705.2, it is required to apply in single passes of minimum of 15mm (0.6 inches) to maximum passes of 50mm (2 inches) and required cooling time between passes must be followed. For the application falls outside the scope of the National Building Code of Canada CAN/ULC S705.2, it can be applied in single passes of minimum of 15mm (0.6 inches) to 102mm (4 inches). Failing to adhere to the minimum required cooling time increases the likelihood of experiencing post-growth scorching and/or fire hazards.

| Number of passes | Single pass thickness | Total thickness | Wait time between passes (Summer/Winter Foam) |
|------------------|-----------------------|-----------------|---|
| 2 | 2" | 4" | **0 Minutes |
| 3 | 2" | 4" to 6" | 15 Minutes |
| 4 | 2" | 6" to 8" | 30 Minutes |

***If the temperature of the initial 2 inches exceeds 107°F (41.7°C), it is suggested to take a 5-minute break between the first two passes of winter foam*

Kawartha 2000 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

- The Blend Polyol should be stored in sealed containers, to avoid absorption of water vapour
- During transportation, protect the product from excessive shaking, and avoid sunlight exposure
- Product should be stored in a ventilated space, away from light, water, and fire

Safety Precautions

- Direct contact with Kawartha 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!

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TECHNICAL ASSISTANCE

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