

## TECHNICAL DATA SHEET

CAN/ULC S705.1 (Including Amendments 1 and 2), TYPE 2

Heatlok® Soya is an insulation spray applied rigid polyurethane foam, green in color, that is tested by an independent recognized laboratory since 2006. This foam product surpasses the requirements outlined in CAN/ULC S705.1-01 (Including amendment 1 & 2) "Standard for thermal insulation - Spray applied rigid polyurethane foam, medium density - Material Specification". HEATLOK SOYA Type 2 material (i.e. the highest LTTR R value classification) meets the requirement of National Building Code of Canada and is listed by the National Research Council Canada under CCMC Listing 13244-L and CCMC # 14068-R for air barrier systems. HEATLOK SOYA is formulated from recycled plastic material, soya oil, and without any Ozone Depletion Substance blowing agent (Zero ODS). This product meets all the requirements of the Montreal protocol to protect the ozone layer. HEATLOK SOYA exceeds the highest requirements for VOC with the GREENGUARD GOLD certification. HEATLOK SOYA is applied exclusively by CUFCA licensed installers and contractors under the application standard CAN/ULC S705.2.

### PHYSICAL PROPERTIES

|               |                                                                                                                                 |                          |               |
|---------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------|
| ASTM D 1622   | Core Density                                                                                                                    | 2.1 - 2.3 lb/ft³         | 34 - 37 kg/m³ |
| ASTM C 518    | Initial Thermal Resistance, 25.4 mm                                                                                             | R-7.2                    | 1.26 RSI      |
|               | Thermal Resistance, 180 days @ 23°C, 25.4 mm                                                                                    | R-6.6                    | 1.17 RSI      |
| CAN/ULC S770  | Long Term Thermal Resistance LTTR<br>Design Value (25.4 mm)<br>Classification Type 2 (CAN/ULC S705.1)                           | R-6                      | 1 RSI         |
| ASTM D 1621   | Compressive Strength (10%)                                                                                                      | 28.3 psi                 | 195 kPa       |
| ASTM D 1623   | Tensile Strength                                                                                                                | 51.5 psi                 | 355 kPa       |
| ASTM D 2856   | Open Cells                                                                                                                      | < 1 %                    |               |
| ASTM D 2842   | Volumetric Water Absorption                                                                                                     | 0.8 %                    |               |
| ASTM E 96     | Water Vapour Permeance, 50 mm                                                                                                   | 0.65 perm                | 37 ng/Pa.s.m² |
| CCMC 07273    | Air Barrier Material, 25-30 mm                                                                                                  | 0.00004 L/(s.m²) @ 75 Pa |               |
| CAN/ULC S741  | Air Barrier Material                                                                                                            | 0.0006 L/(s.m²) @ 75 Pa  |               |
| CAN/ULC S742  | Air Barrier Assemblies                                                                                                          | Classification A1        |               |
| CAN/ULC S102  | Flame Spread Index (Tunnel Test)                                                                                                | 32                       |               |
| CAN/ULC S102  | CAN/ULC S127 (included in CAN/ULC S102)<br>Flame Spread Index (corner wall test)<br>Required and Declared Value (building code) | 200                      |               |
| ASTM D 2126   | Dimensional Stability (28 days)<br>(% volume change, sample without any substrate)<br>@ -20°C<br>@ +80°C<br>@ +70°C & 97% R.H.  | -0.03<br>+2.9<br>+9.8    |               |
| CAN/ULC S774  | VOC Emissions from Polyurethane Foam                                                                                            | Pass (1 day)             |               |
| UL Greenguard | Interior Air Quality                                                                                                            | Certified GOLD           |               |
| ASTM C1338    | Fungi Resistance                                                                                                                | No Fungal Growth         |               |
| ASTM C 411    | Hot Surface Performance (96h @ 93°C) 4 days                                                                                     | Pass                     |               |

### REACTIVITY PROFILE

| Cream Time    | Gel Time      | Tack Free Time | End of Rise   |
|---------------|---------------|----------------|---------------|
| 0 - 1 seconds | 2 - 3 seconds | 4 - 5 seconds  | 4 - 5 seconds |

| LIQUID COMPONENT PROPERTIES*                         |                       |                       |
|------------------------------------------------------|-----------------------|-----------------------|
| PROPERTY                                             | ISOCYANATE            | RESIN                 |
| Colour                                               | Brown                 | Blue                  |
| Viscosity @ 25°C                                     | 150 - 350 cps         | 150 - 350 cps         |
| Specific Gravity                                     | 1.20 - 1.24           | 1.19 - 1.23           |
| Shelf Life*                                          | 6 months              | 6 months              |
| Mixing Ratio (volume)                                | 100 (1 part)          | 100 (1 part)          |
| Vapour Pressure @ 25°C                               | 10 <sup>-7</sup> psi  | 7 - 9 psi             |
| Components system storage temperature recommendation | 15 - 25°C (59 - 77°F) | 15 - 25°C (59 - 77°F) |

\*See SDS for more information.

| MACHINE PROCESSING PARAMETERS USED |                                  |                 |
|------------------------------------|----------------------------------|-----------------|
| Type of Machine                    | Graco H25 Air Purge Gun #AR-5252 |                 |
| Components A & B Temperature       | 104°F                            | 40°C            |
| Components A & B Pressure          | 850 - 1000 psi                   | 5860 - 6900 kPa |
| Ambient Temperature                | 73°F                             | 23°C            |
| Thickness Per Pass                 | 1.25"                            | 32 mm           |
| Number of Passes                   | 2                                |                 |
| Substrate                          | Polyethylene Board               |                 |

| RECOMMENDED PROCESSING PROCEDURES                                              |                                  |                               |
|--------------------------------------------------------------------------------|----------------------------------|-------------------------------|
| Mixing Ratio A/B                                                               | 1/1                              |                               |
| Mixing Dynamic Pressure (minimum)                                              | 5516 kPa                         | 800 psi                       |
| Maximum Thickness Per Pass                                                     | 50 mm                            | 2"                            |
| Maximum Thickness of Successive Passes                                         | 100 mm                           | 4"                            |
| Minimum cooling time period before applying over 100 mm (4") thick application | 4 h                              |                               |
|                                                                                | Substrate & Ambient Curing Temps | Liquid Temperature At The Gun |
| Heatlok Soya Summer                                                            | 41 - 86°F (5 - 30°C)             | 95 - 115°F (35 - 46°C)        |
| Heatlok Soya Winter                                                            | 14 - 41°F (-10 - 5°C)            | 100 - 120°F (38 - 49°C)       |
| Heatlok Soya Super Winter *                                                    | -4 - 14°F (-20 - -10°C)          | 105 - 125°F (41 - 52°C)       |

\* For special order or special winter conditions only.

**General Information :** It is recommended that the foam be covered with an approved thermal barrier in accordance with the applicable building code when used in buildings and cover by a UV coating when used outside. This product should not be used when the continuous service temperature of the substrate is outside the range of -60°C to 80°C (-76°F to 180°F). Do not apply excessive thickness in one application it may cause spontaneous combustion of the foam hours after the application. Respect the recommended procedures. Airmétic is the French trade name of Heatlok Soya. Heatlok Soya is green in color. Polarfoam Soya is peach in color.

**Disclaimer:** The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials.



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