



CLASSIC PLUS™

TECHNICAL DATA SHEET

THERMAL INSULATION AND AIR BARRIER
ESR-1826

Specification Sections: 07 21 19 Foamed-in-Place Insulation, 07 27 00 Spray Polyurethane Foam Air Barriers

PRODUCT DESCRIPTION

Huntsman Building Solutions **Classic Plus™** is a high R-value spray-in-place low density, open celled, flexible, nominal 0.7 lbs/ft³ density, 100% water-blown polyurethane foam insulation manufactured by Huntsman Building Solutions. It is a low VOC product allowing for 4 hour job site re-entry and 24 hour job site re-occupancy at applicable ventilation rates. It is capable of being installed in unvented attics without an ignition barrier or a coating. Huntsman Building Solutions Classic Plus has a yield of 16,000 board feet (annual average). It is suitable for buildings in accordance with the IRC and the IBC including Type I, II, III, IV and V construction. The product is for use as a thermal insulation and air barrier in:

- wall cavities
- floor assemblies
- ceiling assemblies
- roof assemblies (interior)
- attics (vented and unvented)
- crawl spaces (vented and unvented)

| PROPERTIES OF CURED FOAM | | |
|---|-------------|---|
| Characteristic | Test Method | Value |
| Core Density | ASTM D 1622 | 0.7 lb/ft ³ |
| Aged Thermal Resistance at 1" | ASTM C 518 | R-4.0 |
| Air Permeance at 2" | ASTM E 2178 | <0.02 L/s · m ² |
| Water Vapor Permeance at 2" | ASTM E 96 | 20.7 perm (Class III Vapor Retarder at 4.25") |
| Water Absorption | ASTM D 2842 | 5% |
| Dimensional Stability at 7 days (Volume Change) | ASTM D 2126 | 1.7% at 158°F and 97% RH |

| BURN CHARACTERISTICS | | |
|--|-----------------------|----------------------------|
| Surface Burning at 4 inches: | ASTM E 84 | Class 1 |
| Flame Spread Index | | 20 |
| Smoke Development | | 450 |
| Limited Access Unvented Attic Walls & Roof Max Thickness (Uncoated) | Reference TER 1406-03 | Walls - 20" Roof - 20" |
| Limited Access Unvented Crawl Space Walls & Ceiling Max Thickness (Uncoated) | Reference TER 1406-03 | Walls- 3.5" Ceiling- 14" |
| Attic Floor Uncoated Thickness | ASTM E 970 | 13" |

*consult Huntsman Building Solutions Engineering Department for details.

- Huntsman Building Solutions Classic Plus must be covered with ½" of gypsum board, or approved thermal barrier.

ACOUSTICAL PROPERTIES

Performance in a 38 x 89 mm (2 x 4") wood stud wall:

| STC Sound Transmission Class - 37 | | | | | | |
|-----------------------------------|-----|-----|-----|------|------|------|
| Hertz Frequency | 125 | 250 | 500 | 1000 | 2000 | 4000 |
| ASTM E 90 | 19 | 30 | 31 | 42 | 38 | 46 |

| NRC Noise Reduction Coeff. - .70 | | | | | | |
|----------------------------------|-----|-----|-----|------|------|------|
| Hertz Frequency | 125 | 250 | 500 | 1000 | 2000 | 4000 |
| ASTM C 423 | .11 | .43 | .89 | .72 | .71 | .67 |

ENVIRONMENTAL AND HEALTH

- Huntsman Building Solutions Classic Plus™ is 100% water-blown and therefore has zero ozone-depletion potential.
- The reaction used to create Huntsman Building Solutions Classic Plus™ generates carbon dioxide to expand the foam. Huntsman Building Solutions Classic Plus™ has the lowest Global Warming Potential (GWP of 1) value for foam insulation products.
- Huntsman Building Solutions Classic Plus™ is PBDE-free.

INSTALLATION

- Huntsman Building Solutions Classic Plus™ is installed by a network of Licensed Dealers, trained in its installation.
- Not intended for exterior use. Not to be installed within 3"(76 mm) of heat emitting devices or where the temperature is in excess of 180°F (maximum service temperature), as per ASTM C411 or in accordance with applicable codes.
- Installation is generally independent of environmental conditions.
- Huntsman Building Solutions Classic Plus™ has excellent adhesion to a wide variety of substrates including common construction materials.
- It can be installed in hot, humid or freezing conditions. Minimum substrate temperature for application is 14°F (-10°C).
- Surface preparation is generally not necessary.
- Within seconds, the foaming process is complete.

OSHA CONFINED SPACE INFORMATION

An ASTM E-918 test of Huntsman Building Solutions Classic Plus™ for flammability at 140°F concluded that it is not flammable. Consult Safety Data Sheets for details.

HANDLING AND SAFETY

For information on Health and Safety, refer to the Spray Polyurethane Foam Alliance Health and Safety guidance documents at www.spraypolyurethane.com.

AVAILABILITY

Contact Huntsman Building Solutions at 817-640-4900 or visit our website at www.huntsmanbuildingsolutions.com.

WARRANTY

WHEN INSTALLED PROPERLY IN ACCORDANCE WITH INSTRUCTIONS, THE COMPANY WARRANTS THAT THE PROPERTIES OF THE PRODUCT MEET PRODUCT SPECIFICATIONS AS OUTLINED IN THIS TECHNICAL DATA SHEET. SAVE AND EXCEPT ANY EXCLUSIONS REFERENCED IN THE WARRANTY.

TECHNICAL

Huntsman Building Solutions Licensed Dealers and Huntsman Building Solutions provide support on both technical and regulatory issues. Architectural specifications in CSI 3-Part format and design details are available at our website at www.huntsmanbuildingsolutions.com.

RELATED REFERENCES

All physical properties were determined through testing by accredited third party agencies. Huntsman Building Solutions reserves the right to change specifications in its effort of continuous improvement. Please confirm that technical data literature is current.

PACKAGING AND STORAGE

- Packaging - 55 US gallon, steel drums
- Component 'A' - 520 lb. per drum. Base Seal® MDI
- Component 'B' - 480 lb. per drum. Huntsman Building Solutions Classic Plus™ - Resin
- Huntsman Building Solutions Classic Plus™ (Component A and Component B) ideally should be stored between 60°F (15°C) and 85°F (30°C).
- Component A should be protected from freezing.
- Shelf life is 12 months.