

# Product Information Bulletin

## PlastiSpan® EFS Insulation - USA Applications

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The bulletin provides material properties and manufacturing requirements for **PlastiSpan®** EFS insulation manufactured to ASTM E2430<sup>1</sup> for use in exterior insulation and finish systems (EIFS) for use in exterior insulation and finish systems (EIFS).

**Table 1 – PlastiSpan EFS Insulation Properties**

| Material Properties   | ASTM Test Method | Units                      | Values <sup>2</sup> |      |
|---|------------------|----------------------------|---------------------|------|
| <b>Density</b><br><i>Minimum</i>                                  | C303 or D1622    | pcf                        | 0.90                |      |
| <b>Thermal Resistance</b> <sup>3</sup><br><i>Minimum</i>          | C177 or C518     | ft <sup>2</sup> •hr•°F/BTU | 75 °F               | 3.60 |
|   |                  | ft <sup>2</sup> •hr•°F/BTU | 40 °F               | 4.00 |
| <b>Water Vapour Permeance</b> <sup>4</sup><br><i>Maximum</i>      | E96              | perms                      | 5.0                 |      |
| <b>Dimensional Stability</b><br><i>Maximum</i>                    | D2126            | % linear change            | 2.0                 |      |
| <b>Water Absorption</b><br><i>Maximum</i>                         | C272             | % by volume                | 4.0                 |      |
| <b>Flexural Strength</b><br><i>Minimum</i>                        | C203             | psi                        | 25                  |      |
| <b>Compressive Resistance</b><br><i>Minimum @ 10% Deformation</i> | C165 or D1621    | psi                        | 10                  |      |
| <b>Limiting Oxygen Index</b><br><i>Minimum</i>                    | D2863            | % volume                   | 24                  |      |
| Additional Material Properties for PlastiSpan EFS Insulation      |                  |                            |                     |      |
| <b>Water Absorption</b><br><i>Maximum</i>                         | C272             | % by volume                | 2.0                 |      |
| <b>Dimensional Stability</b><br><i>Maximum</i>                    | D2126            | % linear change            | 0.5                 |      |
| <b>Tensile Strength</b><br><i>Minimum</i>                         | D1623            | psi                        | 15                  |      |

<sup>1</sup> **PlastiSpan EFS** insulation material properties are third party certified to requirements of ASTM E2430, **Standard Specification for Expanded Polystyrene (“EPS”) Thermal Insulation Boards for Use in Exterior Insulation and Finish Systems (“EIFS”)**, under a quality listing program administered by Intertek. Intertek Code Compliance Research Report CCRR-1072 confirms compliance with the 2009, 2012 and 2015 International Codes.

<sup>2</sup> Material properties meet or exceed requirements for ASTM C578, Type I and are third party certified under a quality listing program administered by Intertek Testing Services.

<sup>3</sup> Values are minimum per 1-inch of thickness at mean temperatures of 75 °F and 40 °F.

<sup>4</sup> Values are maximum for 1-inch thick samples with natural skins intact. Lower values will result for thicker materials.

The dimensions, dimensional tolerances and block aging for **PlastiSpan® EFS** insulation meet requirements specified in ASTM E2430, **Standard Specification For Expanded Polystyrene (“EPS”) Thermal Insulation Boards For Use In Exterior Insulation and Finish Systems (“EIFS”)** as detailed in Tables 2 and 3 below.

**Table 2 - Dimensions and Dimensional Tolerances**

| Standard Dimension per ASTM E2430 |   |            |
|-----------------------------------|---|------------|
| Length                            | 48 inches   |            |
| Width                             | 24 inches   |            |
| Thickness                         | 3/4 inch to as specified  |            |
| Dimensional Tolerances ASTM E2430 |   |            |
| Length                            | ±1/16 inch  |            |
| Width                             | ±1/16 inch  |            |
| Thickness                         | Minimum: 3/4 inch   | +1/16 inch |
|                                   | Maximum: As specified   | ±1/16 inch |
| Squareness                        | When measured on the large flat face from one corner to the opposing corner, dimensional variations shall not exceed 1/32 inch in 12 inch |            |
| Edge Trueness                     | When measured with a straight edge, edges shall not deviate more than 1/32 inch in 12 inch  |            |
| Face Flatness                     | When measured across the face with a straight edge, maximum deviation from the straight edge shall not exceed more than 1/32 inch         |            |

**Table 3 - Block Aging Requirements Prior to Cutting**

| Storage Condition   | Average Temperature              | Minimum Storage Period |
|---|----------------------------------|------------------------|
| Low Pentane (<4.5% pentane) Raw Materials and Vacuum Mould Technology           |                                  |                        |
| Plant Aging   | Ambient Temperature 68 °F and RH | 12 Days                |
| Full Pentane (nominal 6% pentane) Raw Materials and Vacuum Mould Technology     |                                  |                        |
| Plant Aging   | Ambient Temperature 68 °F and RH | 18 Days                |
| Full Pentane (nominal 6% pentane) Raw Materials and Non-Vacuum Mould Technology |                                  |                        |
| Plant Aging   | Ambient Temperature 68 °F and RH | 42 Days                |
| Heat Aging  | Elevated Temperature 140 °F      | 5 Days                 |

The flame spread index and smoke developed index for **PlastiSpan® EFS** insulation are determined in accordance with ASTM E84 (UL723). Flame spread and smoke developed classifications are third party certified under a quality listing program administered by Intertek Testing Services are provided in Table 4 below.

**Table 4 - Flame-Spread Rating and Smoke Developed Classification**

| Material Properties   | ASTM E84 |
|-----------------------|----------|
| Flame Spread Index    | 20       |
| Smoke Developed Index | 300      |