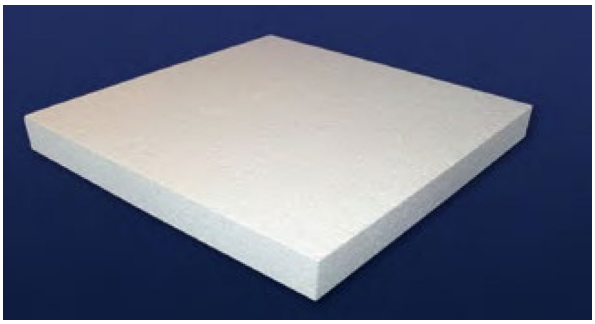
Technical Data Sheet

EPS Rigid Insulation Board

IB Roof Systems®

Product Description:

EPS Rigid Insulation Boards are made of a high-performance rigid insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). EPS boards have stable R-value, excellent dimensional stability, compressive strength, and water-resistant properties.



Size/Packaging:

- Available in 4’ x 4’ and 4’ x 8’ panels
- Available thicknesses range from 1” to 40”
- Custom lengths and widths are available

Features:

- Does not contain any ozone-depleting blowing agents.
- Reduces installation labor
- Stable R-value. Retains thermal properties over its entire service life.
- Lightweight
- High resistance to moisture, mildew, rot, fungus, and bacteria
- Can be recycled if ever removed or replaced
- Covered component under the IB Total Systems Warranty
- Can be used for mechanically attached, fully adhered, and ballasted roof assemblies

Application:

EPS Rigid Insulation Boards can be installed over approved substrates. Refer to IB Specifications and Construction Details for additional installation instructions.

Multi-Layer Installation:

Improved insulation thermal performance and a reduction of thermal bridging can be obtained by the installation of two or more layers with all joints offset. Avoid continuous vertical joints on all multi-layer applications by staggering and offsetting the joints of each layer from those of preceding layers.

Approvals:

- Meets or exceeds the requirements of ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- UL Standard 790 (ASTM E108) Roofing Systems Classification for various recover applications.

EPS Rigid Insulation Boards are supplied under the labels of Insulfoam, Cellofoam, or Thermafoam.

Typical Physical Properties*

Property	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV	Test Method
Product Density (nom. pcf)	1.00	1.25	1.50	2.00	2.50	3.00	ASTM C303
R-value Resistance @25°F @40°F @75°F	 4.35 4.17 3.85	 4.55 4.25 3.92	 4.76 4.55 4.17	 5.00 4.76 4.35	 5.05 4.85 4.50	 5.10 5.05 4.60	ASTM C518 or C177
Compressive Strength, (psi, 10% deformation)	10-14	13-18	15-21	25-33	40	60	ASTM D1621
Flexural Strength (psi)	25	30	35	50	60	75	ASTM D203
Dimensional Stability	2.0	2.0	2.0	2.0	2.0	2.0	ASTM D2126
Water Vapor Permeance (max perm, 1”)	5.0	3.5	3.5	2.0	2.5	2.5	ASTM E96
Water Absorption (max % vol)	4.0	3.0	3.0	2.0	2.0	2.0	ASTM C272
Capillarity	none	none	none	none	none	none	n/a
Flame Spread	< 20	< 20	< 20	< 20	< 20	< 20	ASTM E84 (10 min.)
Smoke Development	150-300	150-300	150-300	150-300	150-300	150-300	ASTM E84 (10 min.)

[1]Numerical ratings are not intended to reflect performance under actual fire conditions. Flame spread index of ≤ 75 and smoke development ≤ 450 meet code requirements for foam plastic roof insulation. Codes exempt foam plastic insulation when used in FM 4450 or UL 1256.

* Physical properties shown are based on data provided by resin manufacturers, independent test agencies and insulation manufacturers.