TECHNICAL DATA BULLETIN

InsulFoam Tapered EPS Insulation



Overview

Versico's InsulFoam Tapered EPS is an engineered insulation made of closed-cell, lightweight expanded polystyrene (EPS). This product is available in a wide range of panel sizes and densities that meet or exceed the requirements of ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. InsulFoam Tapered offers a long-term, stable R-value and has excellent dimensional stability, compressive strength, and water resistance properties.

Features and Benefits

- Labor and cost savings: no complicated filler panel systems, can be installed in a single layer for thicknesses up to 40", and is significantly more cost-effective than extruded polystyrene, perlite, and isocyanurate tapered systems
- Promotes positive drainage: ideal for both new construction and re-roofing projects in which positive slope is desired or ponded water is a concern
- Environmentally friendly: contains no ozone-depleting blowing agents, may contain recycled material, and is 100% recyclable if removed or replaced
- Stable R-value: thermal properties will remain stable over the material's entire service life, no thermal drift
- Proven performance: manufactured using the same chemistry since the mid-1950s for proven performance
- Water resistance: does not readily absorb moisture from the environment

Panel Characteristics

Versico's Tapered EPS is available in 4' x 4' and 4' x 8' panels with thicknesses from 0 ($\frac{1}{8}$ " actual) to 40" in a single layer. There are no limitations to available slope per foot.

Applications

Tapered EPS is well-suited for a variety of single-ply roof systems, including EPDM, TPO, and PVC, and assembly types, including ballasted, mechanically fastened, and fully adhered. Consult Versico Specifications and Details for more information.

Installation Considerations

- Install only as much insulation as can be covered by a roof membrane system, and/or made watertight by the end of each day.
- 2. Tapered EPS should not be exposed directly to solvent- or petroleum-based adhesives and sealants.
- 3. Allow approximately a 1/4" space between insulation and vertical surfaces or roof projections. Do not force or jam product into place.
- Review the layout of all tapered EPS systems before loading and installing panels.
- 5. In re-cover applications, ensure no moisture is trapped in the new or existing roofing system.

Loose-Laid Insulation

Install tapered EPS with continuous side joints and end joints, staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. Joints greater than 1/2" should be filled with the same insulation that is being used in the field of the roof. If insulation is being installed over a thermal barrier or existing layer of insulation, or under a cover board, all joints must be offset a minimum of 6" between layers. When installing tapered EPS directly to a metal deck, the edges of the insulation parallel to the deck ribs must be solidly supported and centered on the ribs. Additionally, for metal decks, ensure that the insulation has a thickness that is adequate to span the rib openings. When conditions dictate, in order to prevent wind blow-off or damage during installation, loose-laid insulation should be weighed down or tacked into place with a minimal quantity of mechanical fasteners.

REVIEW CURRENT VERSICO SPECIFICATIONS AND DETAILS FOR SPECIFIC INSTALLATION REQUIREMENTS.



InsulFoam Tapered EPS Insulation

Typical Properties and Characteristics

Property	Туре І	Type VIII	Type II	Type IX	Type XIV	Type XV	Test Method
Nominal Density (pcf)	1.0	1.25	1.5	2	2.5	3	ASTM C303
C-Value (Conductance) BTU/(hr·ft²·°F) (per inch)	.260	.255	.240	.230	0.222	0.217	ASTM C518 or ASTM C177
R-Value (Thermal Resistance) (hr·ft²·°F)/BTU (per inch @ 75°F)	3.85	3.92	4.17	4.50	4.50	4.60	ASTM C518 or ASTM C177
Compressive Strength (psi. 10% deformation)	10-14	13-18	15-21	25-33	40	60	ASTM D1621
Flexural Strength (min. psi)	25	30	35	50	60	75	ASTM C203
Dimensional Stability (maximum %)	2.0	2.0	2.0	2.0	2.0	2.0	ASTM D2126
Water Vapor Permeance (max. perm., 1 inch)	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	_
Flame Spread	< 20	< 20	< 20	< 20	< 20	< 20	ASTM E84
Smoke Develioped	150-300	150-300	150-300	150-300	150-300	150-300	ASTM E84

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

LEED® Information

Pre-consumer Recycled Content	Up to 25%		
Post-consumer Recycled Content	0%		
Manufacturing Location	Anchorage, AK Puyallup, WA Dixon, CA Chino, CA Mead, NE Aurora, CO Phoenix, AZ Lakeland, FL		



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