

Description

ENERGY 3 Foil Face is a rigid roof insulation board composed of a closed cell polyisocyanurate foam core bonded in the foaming process to a tri-lam foil facer on both sides. ENERGY 3 Foil Face and ISO 3 Foil Face meet the physical requirements of ASTM C 1289, Type I, Class I and Federal Specifications HH-I-1972/Gen and HH-I-1972/2.

Use

ENERGY 3 Foil Face provides high thermal value over metal, nailable, and non-nailable roof decks. ENERGY 3 Foil Face, with low vapor permeability, is an excellent choice for cold storage or metal building applications. The foil facer provides a suitable surface for mechanical attachment to a structural deck. ENERGY 3 Foil Face is classified by Underwriters Laboratories Inc. as an approved roof insulation component in many Class A ballasted and mechanically attached roof constructions and Roof/Ceiling hourly fire-rated assemblies.



Warning

ENERGY 3 Foil Face cannot be used directly with any systems using hot asphalt, heat weld or any fully adhered single ply systems.

Advantages

- High thermal efficiency
- Low vapor permeability
- Excellent for cold storage applications

Typical Physical Properties

	Values	Test Method
Water Absorption, % by Volume – 2 hrs	1.0 max.	ASTM C 209
Dimensional Stability Change 7 days @ 158°F (70°C), 90-100% RH		
Lengthwise	<2%	ASTM D 2126
Crosswise	<2%	
Compression Resistance*		
10% Consolidation-psi (kPa)	20 (138) nom.	ASTM D 1621
Moisture Vapor Transmission**	<1 perm. 57.5 ng/(Pa•s•m ²)	ASTM E 96
Service Temperature	-100°F - 250°F (-73°C - 121°C)	

*Also available in 25 psi (172 kPa). **Foam core only.

For Use over Metal Decks

The minimum thicknesses of ENERGY 3 Foil Face insulation over a metal deck is as follows:

Width of Rib Opening	Up to 2 ⁵ / ₈ " (6.67 cm)	Up to 3 ³ / ₈ " (8.57 cm)	Up to 4 ³ / ₈ " (11.11 cm)
Thickness of Insulation (Minimum)	1.0" (2.54 cm)	1.2" (3.05 cm)	1.3" (3.30 cm)

Sizes

ENERGY 3 Foil Face is manufactured in 4' x 4' (1.22 m x 1.22 m) or 4' x 8' (1.22 m x 2.44 m) boards (other sizes available by special request) and in thicknesses of 1.0" (2.54 mm) to 4.0" (10.16 mm).

Note: Actual length and width measurements for boards thicker than 2" (5.08 cm) can result in a 0.5" (1.27 cm) variation in these two dimensions.

Product Data

Standard Thicknesses (nom.) (in.)	(mm)	LTTTR* R-Value		Foam Core Recycled Content** Postindustrial (%)
		(hr•ft ² •°F)/BTU	m ² •°C/W	
1.0	25.40	6.0	1.05	8.4
1.5	38.10	9.0	1.59	10.3
1.7	43.18	10.3	1.81	10.7
2.0	50.80	12.1	2.14	11.1
2.3	58.42	14.0	2.47	11.7
2.5	63.50	15.3	2.69	11.8
2.8	71.12	17.2	3.03	12.0
3.0	76.20	18.5	3.26	12.3
3.1	78.74	19.0	3.33	12.4
3.3	83.82	20.4	3.60	12.5
4.0	101.60	25.0	4.40	13.1

* The Long-Term Thermal Resistance (LTTTR) values were determined in accordance with CAN/ULC S770.

** Value represents average results

Note: For nonpermeable facers, R-Value may actually be slightly higher

Nonstandard thicknesses are available. Contact your JM sales representative for more information.

Refer to the Material Safety Data Sheets and product labels prior to using these products.