

HP-F POLYISO

Insulation



Overview

Carlisle's HP-F Polyiso is a rigid roof insulation panel composed of a closed-cell polyisocyanurate foam core manufactured on-line to an impermeable foil facer on both sides.

Features and Benefits

- » Foil facer to provide low vapor permeability
- » Approved for direct application to steel decks

Panel Characteristics

- » Available in 4' x 4' (1220 mm x 1220 mm) and 4' x 8' (1220 mm x 2440 mm) panels in thickness of 1" (25 mm) to 3.0" (76.2 mm)

Applications

- » Single-ply roof systems (ballasted, mechanically attached)

HP-F Polyiso Thermal Values

| Thickness | R-value* | Flute Spanability |
|---------------|----------|---------------------------------|
| 1.00" (25 mm) | 6.5 | 2 ⁵ / ₈ " |
| 1.50" (38 mm) | 10.0 | 4 ³ / ₈ " |
| 2.00" (51 mm) | 13.3 | 4 ³ / ₈ " |
| 2.50" (64 mm) | 17.0 | 4 ³ / ₈ " |
| 3.00" (76 mm) | 20.3 | 4 ³ / ₈ " |

*Initial thermal values are determined by using ASTM C518 at 75°F mean temperature and are typical values for impermeable faced products.

Installation

Ballasted Single-Ply Systems

Each HP-F panel is loosely laid on the roof deck. Butt edges and stagger joints of adjacent panels. Install the roof covering according to Carlisle's specifications.

Mechanically Attached Single-Ply Systems

Each HP-F panel must be secured to the roof deck with fasteners and plates appropriate to the deck type. Butt edges and stagger joints of adjacent panels. Install the roof covering according to Carlisle's specifications.

Review Carlisle specifications and details for complete installation information.

Precautions

Insulation must be protected from open flame and kept dry at all times. Install only as much insulation as can be covered the same day by completed roof covering material. Carlisle will not be responsible for specific building and roof design by others, for deficiencies in construction or workmanship, for dangerous conditions on the jobsite or for improper storage and handling. Technical specifications shown in this literature are intended to be used as general guidelines only and are subject to change without notice. Call Carlisle for more specific details, or refer to PIMA Technical Bulletin No. 109: Storage & Handling Recommendations for Polyiso Roof Insulation.

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Typical Properties and Characteristics

| Physical Property | Test Method | Value |
|-----------------------------|-------------------------|---|
| Compressive Strength | ASTM D1621 ASTM 1289 | 20 psi** minimum (138 kPa, Grade 2) |
| Dimensional Stability | ASTM D2126 | 2% linear change (7 days) |
| Moisture Vapor Transmission | ASTM E96 12.10 | <1 perm (57.5 ng/(Pa•s•m ²)) |
| Water Absorption | ASTM C209 | <1% volume |
| Service Temperature | | -100° to 250°F (-73)°C to 122°C |

**Also available in 25 psi minimum, Grade 3

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.

Codes and Compliances

- » ASTM C1289, Type I, Grade 2 (20 psi), Grade 3 (25 psi)
- » International Building Code (IBC) Section 2603
- » UL Standard 790, 263 and 1256: Component of Class A Roof Systems (refer to UL Roof Materials' system directory)
- » FM® Standards 4450/4470: Class 1 approval for steel roof-deck constructions (refer to FM RoofNavSM)
- » California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1418
- » Third-party certification with the PIMA Quality Mark for Long-Term Thermal Resistance (LTTR) values
- » CAN/ULC 5704, Type 2 & 3, Class 2

NOTE: Please be aware the Federal Specification HH-I-1972/GEN has been replaced.

LEED® Information

| | |
|--------------------------------|---|
| Pre-consumer Recycled Content | 9% |
| Post-consumer Recycled Content | 0% |
| Manufacturing Locations | Smithfield, PA Franklin Park, IL Tooele, UT Terrell, TX Lake City, FL |

Foamed plastic as roof deck construction material with resistance to an internal fire exposure only for use in construction no.(s) 120 and 123. See UL Directory of Products Certified for Canada and UL Roofing Materials and Systems Directory. 99DL.

