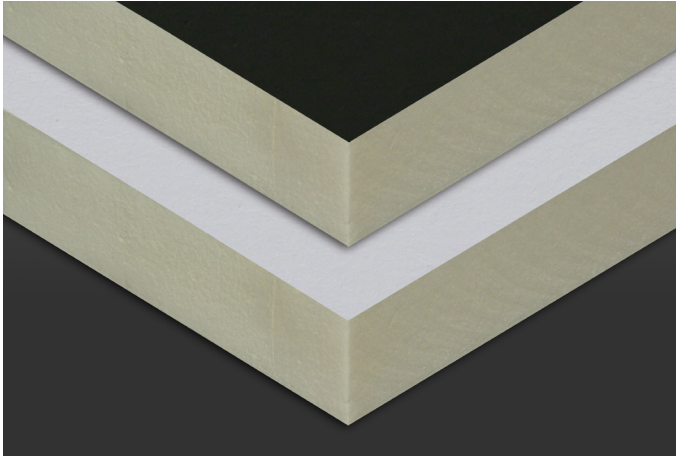


# THERMATIN™ 7

POLYISO INSULATION



## Overview

ThermaThin 7 is a next generation rigid roof insulation panel engineered with an advanced closed cell polyisocyanurate foam core formulated to deliver **R7 per inch**, providing significantly improved thermal efficiency over other insulation products. Each panel is bonded on both sides to high performance glass reinforced or coated glass facers designed for durability, consistent adhesion performance, and compatibility across Carlisle single-ply roofing systems. ReadyFlash® Technology is a standard feature of ThermaThin 7 that allows the contractor to manipulate flash-off times by choosing which side of the insulation board to apply membrane adhesives. ReadyFlash features a dark facer on one side of the insulation board and a light facer on the other.

ThermaThin 7 is designed for contractors seeking higher thermal value in thinner assemblies, optimized system performance, and improved design flexibility, making it ideal for space constrained roof sections, energy sensitive projects like cold storage, and premium building applications.

## Features and Benefits

- » Delivers **R7 per inch**, enabling thinner roof assemblies with superior energy performance
- » Zero ozone depleting components, HFC- and HCFC-free formulation
- » Ideal for cold storage facilities, high R-value commercial buildings, and roofs requiring thin, high efficient insulation layers



## Sustainable Attributes

Carlisle SynTec Systems' focus has always been innovation to solve problems, improve performance, reduce labor, and above all, improve sustainability. Carlisle is committed to driving sustainable and efficient processes in the design and manufacturing of our products.

- » Zero ozone depleting components, HFC- and HCFC-free formulation
- » Up to 34% recycled content by weight (18.8% post-consumer)
- » Contributions to LEED® and Green Globes® certification requirements
- » End-of-life job-site disposal options available for reuse/repurposing
- » Highest R-value per inch, providing maximum energy savings and CO<sub>2</sub> emissions avoidance

## ReadyFlash TECHNOLOGY

- » Allows the contractor to speed up or slow down adhesive flash-off time
- » Increases surface temperature of the dark facer up to 50°F for CGF facer and 25°F for GRF facer above ambient temperature
- » Decreases surface temperature of the light facer up to 10°F for CGF facer and 5°F for GRF facer below ambient temperature
- » Provides up to 2x faster adhesive flash-off on cooler days and up to 4x faster on warmer days when utilizing the dark facer

## Panel Characteristics

- » Available in 4' x 4' (1220 mm x 1220 mm) and 4' x 8' (1220 mm x 2440 mm) panels in thicknesses of 1.45" (37 mm) through 2.5" (64 mm).
- » Available with glass-reinforced felt (GRF) or coated glass facer (CGF) on both sides of the insulation board.

# THERMATHTHIN™ 7

POLYISO INSULATION

## Installation

### Ballasted Single Ply Systems

Each ThermaThin 7 panel is loosely laid on the roof deck. Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

### Mechanically Fastened Systems

ThermaThin 7 panels must be secured to the deck with fasteners and plates (appropriate to the deck type). Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

### Fully Adhered Systems

ThermaThin 7 panels must be secured to the roof deck with fasteners and plates (appropriate to deck type). Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

ThermaThin 7 4' x 8' panels can be secured to the roof deck with Carlisle's Flexible FAST™ Adhesive, either full coverage or bead spacing.

*Review Carlisle specifications and details for complete installation information.*

## Codes and Compliance (Pending Final Test Results)

- » ASTM C1289, Type II, Class 1 (GRF) or Class 2 (CGF), Grade 2 (20 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 RoofNav<sup>SM</sup>)
- » Florida Building Code Approval

## 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 material. Protect installed product from excessive foot traffic. 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.

## Typical Properties and Characteristics (ASTM C1289) (Pending Final Test Results)

Physical Property	Test Method	GRF & CGF Value
Compressive Strength	ASTM D1621	20 psi minimum (138 kPa, Grade 2)
Dimensional Stability	ASTM D2126	2% linear change (7 days)
Moisture Vapor Transmission	ASTM E96	<1.5 perms (57.5ng/(Pa•s•m <sup>2</sup> ))
Water Absorption	ASTM C1763	<1.5% by volume
Service Temperature		-100°F to 250°F (-73°C to 122°C)

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.

## ThermaThin 7 Polyiso Thermal Values

Thickness (inches)	R-value
1.45	10.2
1.5	10.5
1.6	11.2
1.7	11.9
1.8	12.6
1.9	13.3
2.0	14.0
2.1	14.7
2.15	15.0
2.2	15.4
2.3	16.1
2.4	16.8
2.5	17.5



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 Roofing Materials and Systems Directory. 99DL.

