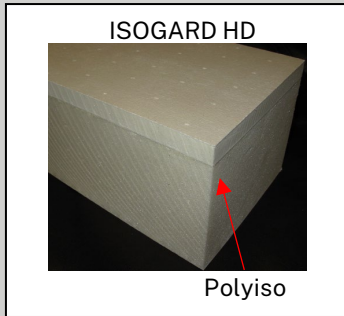


# Technical Information Sheet



## ISOgard™ HD Composite (New Formula)

**Item Description**

High Density Composite Board

Meets or exceeds performance requirements and recommendations of ASTM C 1289, Type IV

### Description

Elevate ISOgard HD Composite roof insulation consists of a closed cell polyiso foam core laminated to 1/2" (13 mm) high density ISOgard HD board. It resists hail damage and foot traffic while providing outstanding thermal performance and is suitable for use with most commercial roofing systems.

All Elevate polyiso insulations use EPA accepted blowing agents and qualify under the Federal Procurement Regulation for Recycled Material. Elevate ISOgard HD Composite board with ISOgard Foam Technology incorporates a HCFC-free blowing agent that does not contribute to the depletion of the ozone (ODP-free).

### Method of Application

1. Insulation shall be neatly fitted to all roof penetrations, projections, and nailers. No more insulation shall be installed than can be covered with membrane and completed before the end of each day's work or before the onset of inclement weather.
2. Elevate ISOgard HD Composite Board may be installed using Elevate Fasteners and Insulation Plates or approved Elevate Insulation Adhesives:
  - I.S.O. Twin Pack™
  - I.S.O. Spray™ R
  - I.S.O. FIX™ II
  - Twin Jet
  - I.S.O.Stick™

### Storage

- Keep insulation dry at all times.
- Elevate insulation above the deck or ground.
- Cover insulation with waterproof tarps.

## Precautions

- Elevate ISOGARD HD Composite is not suitable as an immediate substrate for a ballasted roof system.
- Polyiso foam will burn if exposed to a flame of sufficient heat/intensity. Keep away from heat, sparks, and open flames.
- Protect against dust that may be generated during installation.
- Refer to Safety Data Sheet (SDS) for additional information.

## Specification Compliance

ASTM C1289, Type IV

UL Classified

UL 723/ASTM E84 Flame Spread 50, Smoke Developed 160-180

FM Global Class 1 Approved

FM Global approved for Class 1 insulated steel deck construction.

Foamed Plastic classified by UL as a roof deck construction material with resistance to internal fire exposure for use in construction numbers 120 and 123 (tested to UL 1256).

**Manufacturing Location:** Youngwood, PA | De Forest, WI



Typical Properties		
Property	ASTM Test	Typical Performance
Compressive Strength	D1621	HD Board: 80 psi (552 kPa) ISO Core: 20 psi (≥ 827 kPa)
Density	D1622	2 pcf (32 kg/m <sup>3</sup> )
Dimensional Stability	D2126	<2%
Moisture Vapor Transmission	E96	<1.0 Perm (<57.5 ng/(Pa•s•m <sup>2</sup> ))
Water Absorption by Volume	C209	<1%
Service Temperature	---	-100 to 250 °F (-73 to 121 °C)

Product Data: Available Sizes: 4' x 4' (1.22 m x 1.22 m), 4' x 8' (1.22 m x 2.44 m)						
Thickness inch/mm	LTTR* (R-Value) in ft <sup>2</sup> h °F	Max Flute Span inch/mm	Weight per 4' x 4' (1.2 m x 1.2 m) board	Total Recycled Content %	Post Industrial %	Post Consumer %
1.50 (38.1)	8.2	4.375 (111.1)	9.9 lb (4.5 kg)	44	15	29
2.00 (50.8)	11.1	4.375 (111.1)	11.2 lb (5 kg)	39	15	24
2.50 (63.5)	13.9	4.375 (111.1)	12.5 lb (5.7 kg)	35	15	18
3.00 (76.2)	16.9	4.375 (111.1)	13.7 lb (6.2 kg)	32	15	17
3.50 (88.9)	19.9	4.375 (111.1)	15 lb (6.8 kg)	30	15	15
4.00 (101.6)	23.0	4.500 (114.3)	16.3 lb (7.4 kg)	29	15	14

\*Long Term Thermal Resistance (LTTR) in accordance with ASTM C 1303-11 and CAN/ULC-S770-09

Acceptable Substrates	
Property	NOTE
Structural Concrete, 3000 psi (new & existing)	Please consult Membrane Design Guides online at <a href="http://www.holcimelevate.com">www.holcimelevate.com</a> to review specific information regarding fastener types appropriate for the type of deck and insulation in use.
Steel, min. 22 gauge	
Lightweight Concrete*	
Plywood and OSB, min. 1/2"	
Gypsum, min. 2"	
<b>NOT ACCEPTABLE</b>	Do not use hot asphalt to adhere membrane to the ISOGARD HD surface of ISOGARD HD Composite. Elevate ISOGARD HD Composite is not suitable as an immediate substrate for a ballasted roof system.

Please contact Holcim Technical Services at 800-428-4511 for further information.

This sheet is meant to highlight Elevate products and specifications and is subject to change without notice. Holcim takes responsibility for furnishing quality materials that meet published Elevate product specifications or other technical documents, subject to normal manufacturing tolerances. Neither Holcim nor its representatives practice architecture. Holcim offers no opinion on and expressly refuses any responsibility for the soundness of any structure. Holcim accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Holcim representative is authorized to vary this disclaimer.

Firestone, the brand of premier roofing, wall, and lining systems you know and trust, will be coming to you under a new name: Elevate. During our transition, products carrying the brand name **Firestone** will change to **Elevate** on product labels and packaging, Technical Information Sheets, and elsewhere. Only the brand name is changing. Our products remain the same.

For further information on our brand transition to Elevate, scan the code below with your smartphone, or visit our website: [www.holcimelevate.com](http://www.holcimelevate.com)

