

TECHNICAL INFORMATION SHEET

ISOGARD™ HD Composite

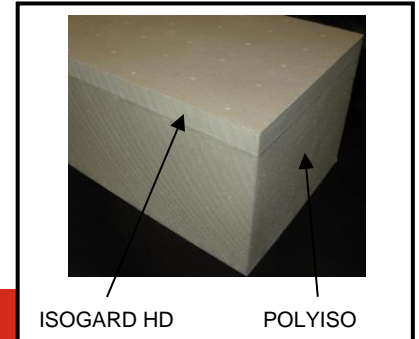
(New Formulation)

Item Description

High Density Composite Board

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

Product Information



Description:

Firestone 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 Firestone polyiso insulations use EPA accepted blowing agents and qualify under the Federal Procurement Regulation for Recycled Material. Firestone 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.
2. 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 on inclement weather.
3. Firestone ISOGARD HD Composite board may be installed using Firestone Fasteners and Insulation Plates or approved Firestone Insulation Adhesives:
 - I.S.O. Twin Pack™
 - I.S.O. Stick™
 - I.S.O. Spray™ R
 - I.S.O. FIX™ II
 - Twin Jet

Storage:

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

Precautions:

- Firestone 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

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 Locations: Youngwood, PA; Corsicana, TX; DeForest, WI

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Typical Properties

Property	ASTM Test	Typical Values
Compressive Strength	D 1621	HD Board: 80 psi (552 kPa); ISO core: 20 psi (138 kPa)
Density	D 1622	2 pcf (32 kg/m³)
Dimensional Stability	D 2126	<2%
Moisture Vapor Transmission	E 96	<1.0 Perm (<57.5 ng/(Pa•s•m²))
Water Absorption by Volume	C 209	<1%
Service Temperature	---	-100 to 250 °F (-73 to 121 °C)

Product Data

Thickness		LTTR* (R-Value) in ft²h °F	Max Flute Span		TOTAL Recycled Content	Post Industrial	Post Consumer
inches	mm		inches	mm			
1.5	38	8.2	4.38	111.12	44%	15%	29%
2.0	51	11.1	4.38	111.12	39%	15%	24%
2.5	63.5	13.9	4.38	111.12	35%	15%	18%
3.0	76	16.9	4.38	111.12	32%	15%	17%
3.5	89	19.9	4.38	111.12	30%	15%	15%
4.0	102	20.5	4.5	114.3	29%	15%	14%

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

Available Sizes: 4' x 4' (1.2 m x 1.2 m)
4' x 8' (1.2 m x 2.4 m)

Acceptable Substrates

Structural Concrete, 3000 psi (New and Existing) Steel, min. 22-gauge Lightweight Concrete Plywood and OSB, min. ½" (13 mm) Gypsum Deck, min. 2" (51 mm)	Please consult the Guides and QuickSpecs online at www.firestonebpco.com to review specific information regarding fastener types appropriate for the type of deck and insulation in use.
Not Acceptable	<ul style="list-style-type: none"> Do not use hot asphalt to adhere the ISOGARD HD surface of ISOGARD HD Composite. Firestone ISOGARD HD Composite is not suitable as an immediate substrate for a ballasted roof system.

Please contact Firestone Technical Services at 1-800-428-4511 for further information.

This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone 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 Firestone representative is authorized to vary this disclaimer.



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Firestone Building Products has always prided itself in being an industry leader. Whether that means introducing new products and services to the industry, or pioneering breakthrough technologies upon which new ideas or testing methods are built.

Continuing in that tradition, we are pleased to announce the launch of our ISOGARD™ family of polyiso insulation. This new line of insulation maintains current thermal performance characteristics at 110 °F and 75 °F but increased lower temperature performance to 6.2R/in at 40 °F to meet both ASTM required and recommended standards. All mechanical performance characteristics, codes, look and feel, packaging, and installation requirements remain the same as the former product offering that we have successfully sold for over 30 years.

As specs are being updated and plants and distribution facilities deplete inventory, there is the possibility of having ISOGARD bundles on a roof specified as ISO 95+™ GL. The below substitutions are permissible and meet the same performance and approval requirements for the intended systems.

ISO 95+ GL → ISOGARD GL

RESISTA™ → ISOGARD CG

HAILGARD™ → ISOGARD HG

This notice serves as confirmation of the acceptability of the ISOGARD series of products as replacement for those listed above.

Thank you for supporting Firestone Building Products.