

# TECHNICAL INFORMATION SHEET

## ISOGARD™ GL Insulation

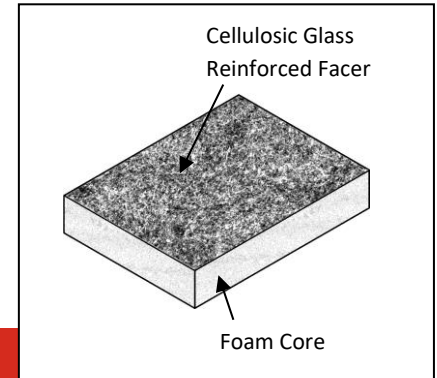
### Item Description

#### Flat and Tapered Polyiso Boards

<u>Flat Boards:</u>	4' x 4' (1.22 m x 1.22 m)
	4' x 8' (1.22 m x 2.44 m)
<u>Tapered Boards:</u>	4' x 4' (1.22 m x 1.22 m)
<u>Slope range:</u>	1/16" per foot (.5%) to 1/2" (13 mm) per foot (4%)
<u>Thickness range:</u>	0.5" (13 mm) to 4.5" (114 mm)

Meets or exceeds performance requirements and recommendations of ASTM C 1289, Type II, Class 1

### Product Information



### Description:

Firestone ISOGARD GL flat and tapered roof insulation consists of a closed-cell polyiso foam core laminated to a glass reinforced mat facer on both major surfaces. Flat and tapered ISOGARD insulation provides outstanding thermal performance on commercial roofing applications, while providing positive rooftop drainage to help eliminate ponding water when tapered ISOGARD GL insulation is used.

All Firestone polyisocyanurate foam insulations use EPA accepted blowing agents. Firestone ISOGARD GL incorporates a HCFC-free blowing agent that does not contribute to the depletion of the ozone layer (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 of inclement weather.
3. Firestone ISOGARD GL board may be installed using:

Firestone fasteners and plates

**NOTE:** For ballasted systems, the top layer of Firestone insulation may not be mechanically attached.

- Hot asphalt (requires a cover board)
- Firestone approved insulation adhesives
  - I.S.O. Twin Pack™
  - I.S.O. Stick™
  - Twin Jet
  - I.S.O. Spray™ R
  - I.S.O. FIX™ II

### Acceptable Immediate Substrates:

- 3,000 psi Structural concrete (must be clean, dry, and properly cured)
- Steel deck (min 22 ga)
- Plywood and OSB (min 1/2" / 13 mm)
- Lightweight concrete
- Gypsum deck (min 2" / 51 mm)

**NOTE:** Please consult the Design Guides and QuickSpecs online at [www.firestonebpco.com](http://www.firestonebpco.com) to review specific information regarding the assembly.

### Storage:

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

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### Precautions:

- Polyiso foam will burn if exposed to a flame of sufficient heat and 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.
- Take care when transporting and handling Firestone insulation to avoid physical damage.

### Specification Compliance:

ASTM C1289, Type II, Class 1  
 UL Classified–UL1256  
 FM 4470 Class 1 Approved  
 Manufactured in an ISO 9001 Registered Facility  
 CAN/ULC-S704-11, Type 2, Class 3. Type 3 available upon request.



CCMC 14135-L

### LEED® Information:

See Recycled Content in table on page 3.

Manufacturing Locations: Florence, KY Corsicana, TX Bristol, Ct  
 De Forest, WI Salt Lake City, UT Youngwood, PA  
 Jacksonville, FL

\*NOTE: LEED® is a registered trademark of the U.S. Green Building Council.

### Typical Properties (Meets ASTM C 1289, Type II, Class 1)

Property	ASTM Test Method	Firestone Typical Performance
Thermal Resistance	C518	40 °F (4.4 °C) 6.2 R/in
		75 °F (23.9 °C) 5.7 R/in
		110 °F (43.3 °C) 5.0 R/in
Compressive Strength	D1621	Grade 2: 20 psi (138 kPa)
		Grade 3: 25 psi (172 kPa) *
Density	D1622	2 pcf (32 kg/m³)
Dimensional Stability	D2126	<2%
Moisture Vapor Transmission	E96	<1 perm (<57.5 ng/(Pa·s·m²))
Water Absorption	C209	<1% by volume
Service Temperature	----	-100 to 250 °F (-73 to 121 °C)
Flame Spread	E84	Index 50
Smoke Development	E84	Index 300 - 400

\*25 psi (172 kPa) available upon request.

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Thickness*		(R-Value) **	Max Flute Span		Approx. Recycled Content		
inches	mm		inches	mm	Post-Consumer	Post Industrial	Total
0.5	12.70	2.9	1.50	38.10	52%	15%	67%
1.0	25.40	5.7	2.62	66.67	37%	15%	52%
1.1	27.94	6.3	2.62	66.67	36%	15%	51%
1.2	30.48	6.8	2.62	66.67	34%	15%	49%
1.3	33.02	7.4	3.67	93.34	32%	15%	47%
1.4	35.56	8.0	3.67	93.34	30%	15%	45%
1.5	38.10	8.6	4.37	111.12	29%	15%	44%
1.6	40.64	9.1	4.37	111.12	27%	15%	42%
1.7	43.18	9.7	4.37	111.12	26%	15%	41%
1.75	44.45	10.0	4.37	111.12	26%	15%	41%
1.8	45.72	10.3	4.37	111.12	25%	15%	40%
1.9	48.26	10.8	4.37	111.12	24%	15%	39%
2.0	50.80	11.4	4.37	111.12	24%	15%	39%
2.1	53.34	12.0	4.37	111.12	22%	15%	37%
2.2	55.88	12.6	4.37	111.12	21%	15%	36%
2.25	57.15	12.9	4.37	111.12	21%	15%	36%
2.3	58.42	13.2	4.37	111.12	21%	15%	36%
2.4	60.96	13.8	4.37	111.12	20%	15%	35%
2.5	63.50	14.4	4.37	111.12	20%	15%	35%
2.6	66.04	15.0	4.37	111.12	19%	15%	34%
2.7	68.58	15.6	4.37	111.12	18%	15%	33%
2.75	69.85	15.9	4.37	111.12	18%	15%	33%
2.8	71.12	16.2	4.37	111.12	18%	15%	33%
2.9	73.66	16.8	4.37	111.12	17%	15%	32%
3.0	76.20	17.4	4.37	111.12	17%	15%	32%
3.1	78.74	18.0	4.37	111.12	16%	15%	31%
3.2	81.28	18.6	4.37	111.12	16%	15%	31%
3.25	82.55	18.9	4.37	111.12	16%	15%	31%
3.3	83.82	19.2	4.37	111.12	16%	15%	31%
3.4	86.36	19.9	4.37	111.12	15%	15%	30%
3.5	88.90	20.5	4.37	111.12	15%	15%	30%
3.6	91.44	21.1	4.37	111.12	14%	15%	29%
3.7	93.98	21.7	4.37	111.12	14%	15%	29%
3.75	95.25	22.0	4.37	111.12	14%	15%	29%
3.8	96.52	22.3	4.37	111.12	14%	15%	29%
3.9	99.06	23.0	4.37	111.12	14%	15%	29%
4.0	101.60	23.6	4.50	114.30	14%	15%	29%
4.1	104.14	24.2	4.50	114.30	13%	15%	28%
4.2	1.6.58	24.9	4.50	114.30	13%	15%	28%
4.25	107.95	25.2	4.50	114.30	13%	15%	28%
4.3	109.22	25.5	4.50	114.30	13%	15%	28%
4.4	111.76	26.1	4.50	114.30	13%	15%	28%
4.5	114.3	26.8	4.50	114.30	13%	15%	28%

\*Other thicknesses available upon request.

\*\*R- values provide a 15-year time-weighted average in accordance with CAN/ULC-S770.

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.