

Technical Information Sheet



ISOGARD™ GL Insulation

Item Description

Flat and Tapered Polyiso Boards

Flat Boards: 4' x 4' (1.22 m x 1.22 m), 4' x 8' (1.22 m x 2.44 m)

Tapered Boards: 4' x 4' (1.22 m x 1.22 m)

Slope Range: 1/16" per foot (.5%) to 1/2" per foot (4%)

Thickness Range: 0.5" (12.7 mm) to 4.5" (114.3 mm)

Other options available include: 4' x 7'4" (1.22 m x 2.25m).

Export cut for international shipments and scored ISO for metal retrofits.

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

Description

Elevate™ 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 Elevate polyisocyanurate foam insulations use EPA accepted blowing agents. Elevate 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. Elevate ISOGARD GL board may be installed using:

- Elevate fasteners and plates.

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

- Hot asphalt (requires a cover board, when hot asphalt or torch applied base sheet is installed)
- Elevate approved insulation adhesives.
 - I.S.O. Twin Pack™
 - I.S.O.Stick™
 - Twin Jet
 - I.S.O. Spray™ R

Acceptable Immediate Substrates

- 2,500 psi Structural concrete (must be clean, dry, and properly cured)
- Steel deck (min 22 ga)
- Plywood and OSB (min 1/2")
- Lightweight concrete
- Gypsum deck (min 2")

NOTE: Please consult the Design Guides and QuickSpecs online at www.holcimelevate.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.

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 Elevate 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 2

CAN/ULC-S704-11, Type 3, Class 2 available upon request



LEED® Information

See Recycled Content in Typical Properties table.

Manufacturing Locations: Bristol, CT
De Forest, WI
Salt Lake City, UT
Youngwood, PA
Florence, KY
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	Elevate 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/m ³)
Dimensional Stability	D2126	<2%
Moisture Vapor Transmission	E96	<1 perm (<57.5 ng/(Pa·s·m ²))
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 160 - 180

*25 psi (172 kPa) available upon request.

Product Information

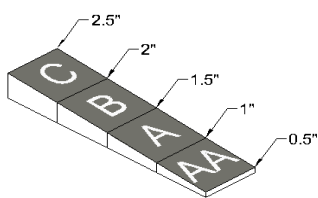
Thickness*		R-Value	Max Flute Span		Approximate Recycled Content		
inches	mm	**	inches	mm	Post-Consumer	Post Industrial	Total
0.5	12.70	2.9	1.50	38.10	52%	15%	67%
1.0	25.40	5.7	2.62	66.67	37%	15%	52%
1.1	27.94	6.3	2.62	66.67	36%	15%	51%
1.2	30.48	6.8	2.62	66.67	34%	15%	49%
1.3	33.02	7.4	3.67	93.34	32%	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	106.58	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.

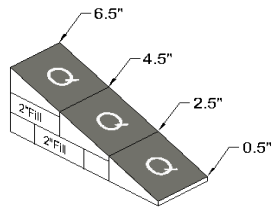
**R- values provide a 15-year time-weighted average in accordance with CAN/ULC-S770.

Tapered ISOGARD GL (available sizes)

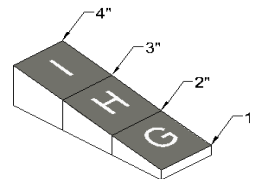
Panel Code	Min-Max Thickness		Slope	
	Inches	mm		
AA	0.5 – 1.0	12.7 – 25.4	1/8"/ft	1%
A	1.0 – 1.5	25.4 – 38.1	1/8"/ft	1%
B	1.5 – 2.0	38.1 – 50.8	1/8"/ft	1%
C	2.0 – 2.5	50.8 – 63.5	1/8"/ft	1%
G	1.0 – 2.0	25.4 – 50.8	1/4"/ft	2%
H	2.0 – 3.0	50.8 – 76.2	1/4"/ft	2%
I	3.0 – 4.0	76.2 – 101.6	1/4"/ft	2%
X	0.5 – 1.5	12.7 – 38.1	1/4"/ft	2%
Y	1.5 – 2.5	38.1 – 63.5	1/4"/ft	2%
Z	2.5 – 3.5	63.5 – 88.9	1/4"/ft	2%
Q	0.5 – 2.5	12.7 – 63.5	1/2"/ft	4%
SS	0.5 – 2.0	12.7 – 50.8	3/8"/ft	3%



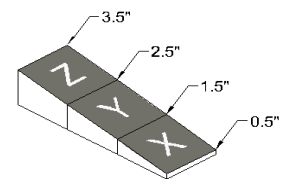
1/8"/ft. Tapered Section



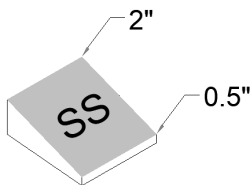
1/2"/ft. Tapered Section



1/4"/ft. Tapered Section



1/4"/ft. Tapered Section



3/8"/ft. Tapered Section

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.