

## FLINTBOARD® ISO

### Polyisocyanurate Roof Insulation

#### Product Information



**Rigid board insulation for hot asphalt, coal tar BUR, modified bitumen and metal and single ply roofing systems.**

FlintBoard® ISO Polyisocyanurate Roof Insulation features a closed-cell polyiso core integrally laminated to heavy, black (non-asphaltic), fiber-reinforced felt facers. FlintBoard ISO is approved for use under all major roof covering systems – built-up, modified bitumen, and single ply.

FlintBoard ISO is offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 6.0 to 25.0. FlintBoard ISO is also available in 25-psi formula. Available in 4' x 4' (1220 mm x 1220 mm) and 4' x 8' (1220 mm x 2440 mm) panels.

FlintBoard ISO is the recommended roof insulation in conjunction with CertainTeed Commercial Roofing Systems including Flintlastic® Roof Systems.

#### Typical Physical Properties

PROPERTY	TEST METHOD	TYPICAL RESULTS
Dimensional Stability (Length and Width)	ASTM D2126	< 2%
Compressive Strength (10% Deformation)	ASTM D1621	20 psi (140 kPa) or 25 psi (172 kPa)
Water Absorption	ASTM C209 ASTM D2842	< 1% < 3.5%
Moisture Vapor Transmission	ASTM E96	< 1.0 perm (85.0ng/ (Pa•s•m <sup>2</sup> ))
Product Density	ASTM D1622	Nominal 2.0 pcf (32.04 kg/m <sup>3</sup> )
Flame Spread	ASTM E84 (Full 10 min.Test)	< 40-60*
Tensile Strength	ASTM D1623	> 730 psf (35 kPa)
Service Temperature	—	-40 to 200°F

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation. This data is offered as a service to our customers and is subject to change. All information can be confirmed by contacting CertainTeed's Technical Department.

\*The numerical ratings as determined by ASTM Test Method E84 are not intended to reflect hazards presented by this or any other material under actual fire conditions. A flame spread index of 75 or less meets code requirements regarding flame spread for foam plastic roof insulation. However, flame spread values are not required for foam plastic insulation used in roof deck constructions that comply as an assembly with FM 4450 or UL 1256.

#### Installation

Refer to the CertainTeed FlintBoard product brochure and to the CertainTeed Commercial Roof Systems Manual for installation details regarding FlintBoard Roof Insulation. Refer also to Technical Bulletin CT-ISO-08-02.

**Mechanical Attachment:** Mechanical fastening is the recommended method of attachment over nailable decks. Refer to the current FM Loss Prevention Data Sheet 1-29 for special considerations regarding perimeter and corners of the roof. Go to [www.certainteed.com](http://www.certainteed.com) for typical fastening patterns for field area of the roof.

### FlintBoard ISO Thicknesses and LTTR

Thickness		LTTR Value*	Metal Deck Flute Spanability	
IN	MM		IN	MM
1.0	25.40	5.7	2.625	66.675
1.5	38.10	8.6	4.375	111.125
1.8	45.72	10.3	4.375	111.125
2.0	50.80	11.4	4.375	111.125
2.5	63.50	14.4	4.375	111.125
2.6	66.04	15.0	4.375	111.125
3.0	76.20	17.4	4.375	111.125
3.1	78.74	18.0	4.375	111.125
3.3	83.82	19.2	4.375	111.125
3.5	88.90	20.5	4.375	111.125
3.8	96.52	22.3	4.375	111.125
4.0	101.60	23.6	4.375	111.125
4.3	109.22	25.5	4.375	111.125
4.5	114.30	26.8	4.375	111.125

\*LTTR (Long-term thermal resistance) values are based on ASTM C 1289, effective 1/1/2014, which provides updated 15 year time weighted averages.

### Storage

For further recommendations regarding attachment of insulation to lightweight insulating concrete decks or poured gypsum concrete decks, follow the instructions outlined in the *NRCA Roofing Manual, Membrane Roof Systems 2011*. Flintboard products shall not be adhered directly to these decks by any bitumen or adhesive attachment method.

**Adhesive Attachment:** For installing FlintBoard products to a structural concrete deck, adhesive/bitumen attachment is the recommended method. When using hot bitumen on concrete decks, priming is necessary. Precautions must be taken to ensure that concrete decks have been fully hydrated and do not continue to release moisture. Insulation must remain dry before, during, and after installation. Precautions must also be taken to prevent bitumen drippage. When using hot-applied bitumen for attachment of insulation to structural concrete decks and successive insulation layers, the temperature of the bitumen shall be approximately 50°F below the interply hand mopping EVT. The deck shall be dry and care must be taken to apply the bitumen in sufficient quantity to totally cover the available deck surface when applied at the correct temperature (390°F). To ensure embedment, the board shall also be “stepped in” at several points while the bitumen is still hot enough to allow positive attachment. The recommended size for FlintBoard product for hot bitumen attachment is 4' x 4'.

When using polyurethane adhesives or cold applied asphalt adhesive, follow the adhesive manufacturer’s installation recommendations.

**Storage/Precautions:** Factory-applied packaging is intended only for protection during transit. When stored outdoors or on the job site, packages should be stacked on pallets at least three inches above ground level and completely covered with a weatherproof covering such as a tarpaulin. The temporary factory-applied packaging should be slit or removed to prevent accumulation of condensation. Roof insulation which has become wet or damaged should be removed and replaced with solid, dry insulation, of the same type.

**Warning!** Do Not Leave Exposed: This product is a polyiso organic plastic foam and will burn if exposed to an ignition source of sufficient heat and intensity, or open flame, such as a welder’s torch. Like other organic materials, this product will release smoke if ignited. Do not apply flame directly to FlintBoard roof insulations. This product should be used only in strict accordance with CertainTeed recommended uses and instructions.

**FlintBoard ISO Compliances:**

- ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi)
- Miami-Dade County, Florida
- California State Insulation Quality Standards and Title 25, Foam Flammability Criteria
- IBC, NBC, UBC, SBC Sections on Foam Insulation
- CCMC
- Meets CAN/CGSB-51.26-M86. Meets CAN/ULC-S704.
- State of Florida Product Approval
- NYC MEA

**FM Standard 4450/4470 Approval**

FlintBoard ISO is approved for Class 1 insulated steel, wood, concrete and gypsum roof deck construction. Refer to FM Approvals RoofNav for details on specific systems.

**UL Standard 1256 Classification**

Insulated metal deck construction assemblies – Construction #120 and Construction #123.

**UL Standard 790 (ASTM E108) Classification**

Class A with most roof membrane systems. See UL Roofing Materials & Systems Directory.

**UL Standard 263 Fire Resistance Classification (ASTM E119)**

Some classifications for fire resistance are P225, P230, P232, P259, P508, P510, P514, P519, P701, P710, P713, P717, P718, P719, P720, P722, P723, P724, P725, P727, P728, P729, P730, P732, P734, P735, P739, P801, P814, P815, P818, P819, P823, P824, P826, P827, P828 and P832. See UL Fire Resistance Directory for updated listings.

**UL Standard 1897 Wind Uplift Resistance** 120 PSF, 150 PSF, 165 PSF, 245 PSF

**UL Certified for Canada**

**UL of Canada**

Insulated Roof Deck Assemblies

Construction #C34

Meets CAN/ULC-S126-M86, CAN/ULC-S101-M89, CAN/ULC-S107-M87 Criteria.

For more information, contact CertainTeed Commercial Roofing Technical Services at 800-396-8134 x2.

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CertainTeed Corporation  
P.O. Box 860  
Valley Forge, PA 19482

Professional: 800-233-8990  
Consumer: 800-782-8777

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