

DURO-GUARD® ISO FOIL

FLAT AND TAPERED PANELS

Description:

Duro-Guard® ISO Foil is a closed-cell polyisocyanurate foam core insulation board with integrally laminated foil facers which are compatible with Duro-Last® roof membranes.

- Manufactured with a blowing agent that has zero ozone depletion potential (ODP) and virtually no global warming potential (GWP).
- Approved for direct application to steel decks.
- Available in two grades of compressive strength per ASTM C 1289.
 - Type II, Class 1, Grade 2 (20 psi).
 - Type II, Class 1, Grade 3 (25 psi).
- Refer to Table 2 for physical properties.
- This product is not intended as a substitute for a vapor retarder.
- Duro-Last membrane shall not be adhered to this product.
- This product is not an acceptable substrate for the Duro-Bond® System.

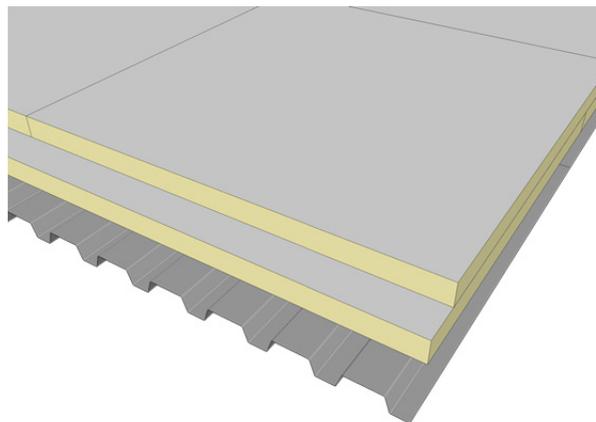


Figure 1. Duro-Guard ISO Foil On Steel Deck

Recommended Uses:

- Mechanically attached Duro-Last roof systems.
- Metal retrofit roof systems.

Underwriters Laboratories, Inc. Classifications:

- UL 1256.
- Insulated Metal Deck Constructions.
 - No. 120, 123, 292.
- UL 790.
- UL 263 Hourly Rated P Series Roof Assemblies.
- UL Classified for use in Canada.

Factory Mutual Approvals:

- FM 4450, FM 4470.
- Approved for Class 1 insulated steel deck construction.
- Refer to FM Approval's RoofNav for details on FM Approved systems (www.roofnav.com).

Flat Panels:

- Available sizes:
 - 4 ft. x 4 ft.
 - 4 ft. x 8 ft.
 - Thicknesses: 1 to 4 inches.
- Refer to Table 1 for R-value and flute spanability.

* Contact Duro-Last for additional thickness options.

TABLE 1. THERMAL VALUES				
THICKNESS*		LTTR R-VALUE	FLUTE SPANABILITY	
inches	mm		inches	mm
1.00	25	5.70	2.625	67
1.50	38	8.60	4.375	111
1.60	41	9.10	4.375	111
1.70	43	9.70	4.375	111
2.00	51	11.40	4.375	111
2.50	64	14.40	4.375	111
2.70	69	15.60	4.375	111
3.00	76	17.40	4.375	111
3.30	84	19.20	4.375	111
3.50	89	20.50	4.375	111
3.60	91	21.10	4.375	111
4.00	102	23.60	4.375	111

Installation:

- Panels must be kept dry before, during and after installation. Install only as much insulation as can be covered the same day with completed roofing.
- The use of multiple layers of insulation with joints staggered a minimum of 6 inches between layers is recommended to eliminate thermal bridging.
- Abut panel edges together and stagger joints of adjacent panels.
- Boards must be neatly fitted to roof deck and around penetrations with no gaps greater than ¼ inch.
- Refer to the appropriate Duro-Last roof system specification and detail drawings for deck preparation and attachment requirements.
- Precautions must be taken to ensure that new concrete decks have fully hydrated and do not continue to release moisture.

Panel Attachment:

- Panels may be attached to the roof deck using mechanical fasteners. Insulation adhesive or hot bitumen are not acceptable to use with this product.

Mechanical Attachment

- When installing multiple layers (which may include insulation, cover boards and thermal barriers) it is acceptable to mechanically secure through all layers.
- Use fasteners and plates supplied by or approved by Duro-Last, Inc.

Storage:

- Insulation must be protected from open flame and kept dry at all times.
- Factory applied packaging is intended only for protection during transit. Slit or remove the packaging to prevent accumulation of condensation.
- Store elevated (at least 3 inches) and completely covered with a weatherproof covering such as a tarpaulin.
- Do not use panels which are wet or damaged.
- Refer to PIMA Technical Bulletin No. 109: *Storage and Handling Recommendations for Polyiso Roof Insulation* for additional guidelines (www.pima.org).

Compressive Strength	ASTM D 1621 ASTM C 1289	Grade 2	20 psi (138 kPa)
		Grade 3	25 psi (172 kPa)
Dimensional Stability	ASTM D 2126	2% linear change (7 days)	
Moisture Vapor Transmission	ASTM E 96	< 1 perm (57.5 ng/Pa·s·m ²)	
Water Absorption	ASTM C 209	< 1% volume	
Service Temperature		-40° to 200° F (-40° to 93° C)	

Limitations:

- Duro-Last, Inc. will not be responsible or liable for any defects or problems related to building or roof design by others, to deficiencies in construction, to dangerous conditions on the job site, or to improper storage, handling or installation by others.