

DURO-GUARD® ISO HD

Description:

Duro-Guard® ISO HD is a ½ inch thick high density polyisocyanurate insulation panel specifically designed for use as a cover/recover board. It is manufactured on-line using premium performance coated glass facers.

- R-value of 2.5.
- Lightweight (11 lbs. per 4 ft. x 8 ft. panel).
- Easy to cut, handle and install.
- Manufactured with a blowing agent that has zero ozone depletion potential (ODP) and virtually no global warming potential (GWP).
- Recycled content > 8%.
- Compressive Strength: 80 – 110 psi.
- 4 pcf density provides enhanced physical properties.
- Passes ASTM Resistance to Mold Test.
- Refer to Table 1 for physical properties.

Recommended Uses:

- Mechanically fastened Duro-Last® Roofing Systems.
- Adhered/Fully Bonded Duro-Last Roofing Systems.
- Duro-Bond® Roofing Systems.
- Metal retrofit roofing systems.

Underwriters Laboratories, Inc. Classifications:

- Refer to Duro-Last's UL Listings (TGFU.R10128) for assembly details.

Factory Mutual Approvals:

- FM 4450, FM 4470.
- Refer to FM Approval's RoofNav for details on FM Approved systems (www.roofnav.com).

Flat Panels:

- Available size:
 - 4 ft. x 8 ft.
 - 4 ft. x 4 ft.
 - Thicknesses: ½ inch.

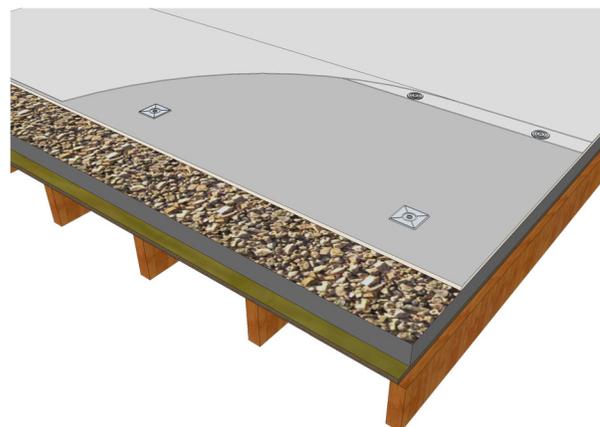


Figure 1. Duro-Guard ISO HD (Shown as Recover Board)

TABLE 1. PHYSICAL PROPERTIES – COVER BOARD		
Compressive Strength	ASTM D 1621	80 – 110 PSI
Dimensional Stability	ASTM D 2126	< .5 % linear change (7 days)
Water Absorption	ASTM C 209	< 1% volume
Resistance to Mold	ASTM D 3273	Passed
Service Temperature		260° F (126° C) or less

Installation:

- In steel deck applications, Duro-Guard ISO HD can only be used as a cover board over insulation or as recover board over an existing roof. It may be placed directly on flute filler in a metal retrofit application assuming the flutes are completely filled.
- 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 Roofing System specification and detail drawings for deck preparation and attachment requirements.

- Precautions must be taken to ensure that new concrete decks have fully cured 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. It is acceptable to use these products in combination.

Mechanically Fastened

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

Adhesive Attachment

- Insulation adhesive must be supplied by Duro-Last, Inc. Refer to the adhesive's product data sheet for application guidelines. Acceptable products:
 - Duro-Grip® Insta-Stik™.
 - Duro-Grip Olybond®.
 - Duro-Grip Millenium Weather-Tite®.
 - Duro-Grip CR-20.
 - Subsequent layers of insulation and approved cover boards may be attached with insulation adhesive.
- Maximum panel dimensions are 4 ft. x 4 ft.

Hot Bitumen Attachment

- When using hot bitumen on concrete decks, priming is necessary.
- Temperature of the bitumen shall be approximately 50° F below the inter-ply 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.
- To ensure embedment, the board shall also be "stepped in" at several points while the bitumen is still hot enough to allow positive attachment.
- Maximum panel dimensions are 4 ft. x 4 ft.
- Any roof membrane contaminated with bitumen must be replaced.

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).

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.