DURO-GUARD® DEXCELL™ CEMENT ROOF BOARD

Description:

Duro-Guard® DEXcell™ Cement Roof Board is a high-performance roof board for use in low-slope Duro-Last® roofing systems. It enhances the durability of the roofing system when used as a cover board in adhered or mechanically attached systems.

DEXcell Cement Roof Board is a fire barrier and thermal barrier manufactured of Portland cement, lightweight aggregate and glass mesh that provides an exceptionally hard, durable surface that is able to withstand prolonged exposure to moisture.

- Manufactured to ASTM C 1325.
- Fire barrier meets FM Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790.
- Lightweight cementitious core.
- Superior moisture resistance.
- Exceptional freeze/thaw resistance.
- Impact resistant, extremely durable and dimensionally stable.
- High compressive strength.
- Resists mold growth on the board per ASTM D 3273.
- Scores and snaps easily.
- Recommended for covered roof installations (e.g. vegetative, paver, ballast, photovoltaic, etc.).
- Refer to Table 1 for physical properties.

Recommended Uses:

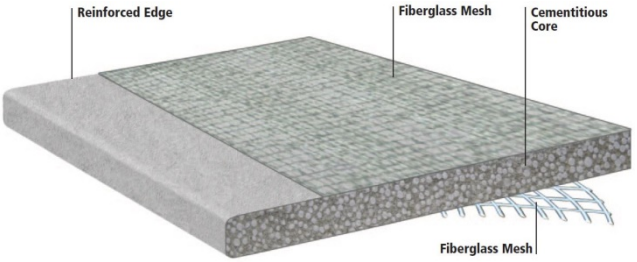
- Adhered Duro-Last roofing systems.
- Mechanically attached Duro-Last roofing systems.
- Duro-Bond® roofing systems.
- Metal retrofit roofing systems.

Underwriters Laboratories, Inc. Classifications:

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

Factory Mutual Approvals:

- FM 4450, FM 4470.
- FM Class 1.



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

Flat Panels:

- Available sizes:
  - 4 ft. x 8 ft.
  - 4 ft. x 4 ft.
  - Thickness: 7/16 inch.

TABLE 1. PHYSICAL PROPERTIES		
Flexural Strength	ASTM C 947	1,000 lbs. min.
Flute Spanability	ASTM E 661	12 inches
Permeance	ASTM E 96	10 perms min.
Water Absorption	ASTM C 473	10% max.
Mold Resistance	ASTM D 3273	10
Compressive Strength		1,250 psi
Flame Spread, Smoke Developed	ASTM E 84, UL 723, CAN/ULC-S102	0/0
Bending Radius		5 ft.
Weight		2.1 lbs./sq. ft.

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Installation:

- In steel deck applications, refer to Table 1 for flute spanability.
- 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 loosely (minimum of 1/16-inch gap on all sides) and stagger joints of adjacent panels. Gaps may need to be larger depending on factors like roof deck size, membrane color, deck surface temperature and time of year the roof assembly is installed.
- Gaps must be no greater than 1/4 inch around all penetrations.
- 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 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. It is acceptable to use these products in combination.

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.

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 Olybond500®.
  - Duro-Grip Millenium Weather-Tite®.
  - Duro-Grip CR-20.
- Subsequent layers of insulation and approved cover boards may be attached with insulation adhesive.

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.
- Any roof membrane contaminated with bitumen must be replaced.

Storage:

- 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.

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