

DEXcell[®] CEMENT ROOF BOARD

High Performance Gypsum-Fiber Roof Board

DESCRIPTION

DEXcell[®] Cement Roof Board is a high-performance roof board for use in low-slope 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.

ADVANTAGES

- ▶ **Exceptional Strength** — Engineered to provide superior wind-uplift performance for a wide variety of roof assemblies. DEXcell[®] Cement Roof Board has uniform composition providing enhanced bond strength of membrane systems with no risk of facer delamination.
- ▶ **Fire Performance** — Provides excellent fire performance and demonstrates exceptional surface burning characteristics
- ▶ **Moisture and Mold** — Uniform water-resistant core ensures excellent moisture and mold resistance.
- ▶ **Versatile** — Can be for a wide variety of roofing systems, including fully adhered, mechanically attached and ballasted roofs using single-ply membranes, modified bitumen, fluid-applied, built-up roofing, spray foam and metal.

CODES AND COMPLIANCES

DEXcell[®] Cement Roof Board is manufactured to conform to ASTM C1325, "Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing."

UL Classified as to Surface Burning Characteristics and Non-Combustibility in accordance with ASTM E84 (CAN/ULC-S102)

Meets UL Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790 and ULC CAN-S107. See the UL Building Materials Directory for more information.

DEXcell Cement Roof Board is classified in roof deck constructions in accordance with ANSI/UL 1256; refer to UL Certifications Directory: ul.com.

DEXcell Cement Roof Board complies with requirements of FM 4450 and FM 4470. Meets FM Class 1.

Use in accordance with a rated system, and DEXcell Cement Roof Board provides a thermal barrier meeting IBC Section 2603.

INSTALLATION

1. All board edges and ends should be loosely abutted (minimum ¼ inch gap on all edges) in typical installations. This gap may need to be larger depending on factors like the roof deck's size, membrane color, ultimate deck surface temperature and time of year the roof assembly is installed. Installations during temperatures below 50°F may require larger spacing.
2. Use fasteners or adhesives specified in accordance with system requirements. Install approved fasteners with plates into the DEXcell[®] Cement Roof Board. Install fasteners and adhesives in compliance with the roof system manufacturer's installation recommendations and FMG Property Loss Prevention Data Sheet 1-29. Proper fastener spacing or adhesive application is essential to achieve wind-uplift performance
3. Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of DEXcell[®] Cement Roof Board.
5. See properties table for maximum flute span when panels are applied directly over metal decking.

Refer to roof system manufacturer's written instructions, local code requirements and Factory Mutual Global (FMG) and/or Underwriters Laboratories (UL) requirements for proper installation techniques.

SAFETY & HANDLING

This product contains fiberglass facings which may cause skin irritation. Dust and fibers produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimize contact with skin and eyes. Wear long sleeve shirts, long pants and eye protection. Always maintain adequate ventilation. Use a dust mask or NIOSH/MSHA approved respirator as appropriate in dusty or poorly ventilated areas.

PRODUCT INFORMATION

Thickness	7/16 INCH		5/8 INCH	
Width	4 ft		4 ft	
Length	4 ft	8 ft	4 ft	8 ft
Pieces per Pallet	30	30	20	20
Square Feet per pallet	480	960	360	960
Pallet Weight	1,067	2,110	1,080	2,130

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PHYSICAL PROPERTIES

CHARACTERISTIC	ASTM	7/16 INCH (11.1 MM)	5/8 INCH (15.9 MM)
Weight; lb/sq ft	C1325	2.1 lb/sq ft	3.0 lb/sq ft
Flexural Strength (parallel); psi	C1325	750	750
Compressive Strength; psi	C473	1,250	1,250
Bending Radius; in		5	5
Flute Spannability; in	E661	12	12
Thermal Resistances	C518	R = .28	R = .40
Permeance; perms	E96	> 5	> 5
Water Absorption; % of weight	C473	≥ 10	≥ 10
Linear Variation with Change Moisture; %	C1325	≥ 0.07	≥ 0.07
Mold Resistance	D3273	10	10
Surface Burning Characteristic	E84	Class A	Class A
Flame Spread	E84	0	0
Smoke Developed	E84	0	0

PRECAUTIONS

- DEXcell® Cement Roof Boards are engineered to perform within a properly designed roof system following good roofing practices. The use of DEXcell® Cement Roof Boards as a roofing system component is the responsibility of the design professional.
- Consult with the appropriate system manufacturer and/or design authority for system and assembly specifications and instructions on applying other products to DEXcell® Cement Roof Boards.
- Keep DEXcell® Cement Roof Boards panels dry before, during and after installation. Moisture accumulation may significantly decrease wind uplift and vertical pull resistance in the system or assembly. DEXcell® Cement Roof Boards that contain disproportionate free moisture content may require testing or replacement.
- Avoid application of DEXcell® Cement Roof Board during rain, heavy fog and any other conditions that may deposit moisture on the surface of the board. Apply only as much DEXcell® Cement Roof Board as can be covered by a watertight roof covering the same day.
- For re-roof or re-cover applications, existing roofing system must be thoroughly dry prior to application of DEXcell® Cement Roof Board.
- Remove the plastic packaging from all DEXcell® Cement Roof Boards immediately upon receipt of delivery. Failure to remove the plastic packaging may result in entrapment of condensation or moisture. Material stored outside must be stored off the ground and protected by a breathable waterproof covering.
- When applying solvent-based adhesives or primers, allow sufficient time for the solvent to evaporate to avoid potential damage to the DEXcell® product or other system components. Excessive use of solvent-based adhesives increases the risk of blisters. For water-based adhesives, follow manufacturer's recommendations. Confirm any priming requirements of DEXcell® products with the membrane manufacturer.
- When roofing systems are installed on new poured concrete or light weight concrete decks or when re-roofing over an existing concrete deck, a vapor barrier should be installed above the concrete to retard the migration of water from the concrete into the roof assembly. Always consult the roofing system manufacturer or design authority for specific instructions for applying other products to DEXcell® Cement Roof Board.
- DEXcell® Cement Roof Boards allows the bonding of cold mastic modified bitumen and torching directly to the surface. Consult with the system manufacturer for recommendations on this application.
- DEXcell® Cement Roof Board is recommended for hot-mop applications. When hot mopping, follow the manufacturer's recommendations with respect to ambient temperature and humidity, optimal temperature for the asphalt and appropriate handling of the material. For application temperatures in excess of 450 °F (232 °C) and/or mopping type IV asphalt, ribbon mopping, spot mopping or installing a venting base sheet is recommended.