



Description

DensDeck® Prime Roof Board is a reinforced gypsum panel with a moisture-resistant core and coated glass mat facers. DensDeck® Prime Roof Board face and back mat provide compatibility, uniform application, and consistent performance with most roofing adhesives.¹ DensDeck® Prime Roof Board provides a high level of moisture resistance through the use of GP's patented EONIC™ Technology, and enhances the overall wind resistance² of an assembly while also increasing the hail and puncture resistance of the membrane as compared with systems with no cover board.² For full application instructions, please consult the applicable specification manual for the system being installed (available at gaf.com).

Primary Uses

DensDeck® Prime Roof Board is compatible with many types of roofing products, including: modified asphalt, single-ply, metal systems, re-cover board, polyisocyanurate, and polystyrene insulation. DensDeck® Prime Roof Board can also be used as a form board for poured gypsum concrete decks in roof applications as well as a substrate for spray foam roofing systems. DensDeck® Prime Roof Board with thicknesses of 1/2" (12.7 mm) and 5/8" (15.9 mm) may also be used in vertical applications as a backer-board or liner for the roof side of parapet walls.

DensDeck® Prime Roof Board may also allow the bonding of hot-mopped, cold mastic, and torched modified bitumen directly to the surface. For information on this application, contact GAF Technical Support at 1-877-GAF-ROOF or technicalquestions@gaf.com.

Standards and Codes Approvals

DensDeck® Prime Roof Boards are manufactured to meet ASTM C1177 and have the following approvals:

- State of Florida Approved
- Miami-Dade County Product Control Approved

Recommendations and Limitations

DensDeck® Prime Roof Boards are manufactured for use in a properly designed roof system installed in accordance with good roofing practices. The selection of DensDeck® Prime Roof Board as a roofing component in any system or assembly is the responsibility of the design professional. For full application instructions, please visit gaf.com for the applicable specification manual for the system being installed.

The need for a separator sheet between the DensDeck® Prime Roof Board and the roofing membrane must also be determined by the design professional.

Confirm any priming requirements with GAF prior to installation. When applying solvent-based adhesives or primers, allow sufficient time for the solvent to flash off to avoid damage to roofing components. DensDeck® Prime Roof Boards should not be subjected to abnormal or excessive loads or foot traffic, such as, but not limited to, use on plaza decks or under steel-wheeled equipment that may fracture or damage the panels. Take appropriate measures to protect the roofing system from physical damage (for example, laying plywood or OSB when heavy equipment will be moved across the roof).

When using DensDeck® Prime Roof Boards for hot-mopped applications, a maximum asphalt application temperature of 425°F (218°C) – 450°F (232°C) is recommended. Application temperatures above these recommended temperatures may adversely affect roof system performance. For full application instructions, please consult the applicable specification manual for the system being installed, available at gaf.com. When using DensDeck® Prime Roof Board as a substrate for torch applications, ensure that the product is dry and that the proper torching and safety requirements are followed by professionals experienced in torch applications. Limit the heat to the DensDeck® Prime Roof Board. Maintain a majority of the torch flame directly on the roll.

Installation conditions such as inclement weather conditions, dew, application temperatures outside of the designated installation temperature range, and improper installation techniques may cause adverse effects in roofing systems.

Handling and Use – CAUTION

WARNING: Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Do not taste or swallow. Avoid prolonged exposure. Observe good industrial hygiene practices. Use only in well-ventilated areas. Wear appropriate NIOSH/MSHA approved dust mask or filtering facepiece if dust is generated. Do not eat or drink while using the product. Wash hands before eating, drinking, or smoking. See the product Safety Data Sheet for more information.

Moisture Management

DensDeck® Prime Roof Boards, like other components used in roofing systems, must be protected from exposure to moisture before, during, and after installation.

Remove the plastic packaging from all DensDeck® Prime Roof Board immediately upon receipt of delivery. Failure to remove the plastic packaging may result in entrapment of condensation or moisture inside the packaging. DensDeck® Prime Roof Board stored outside must be stored level and off the ground and protected by a breathable waterproof covering. DensDeck® Prime Roof Board must be covered with roofing material the same day it's installed.

Although DensDeck® Prime Roof Boards are engineered with fiberglass facings and high-density gypsum cores, the presence of free moisture can have a detrimental effect on the performance of the product and the installation of roofing membranes.

For example, hot asphalt applications can blister; torched modified bitumen may not properly bond; and adhesives for single-ply membranes may not dry and bond properly. Moisture accumulation may also significantly decrease wind uplift and vertical pull resistance in the system or assembly.

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¹ GAF warranties and guarantees provide coverage for wind speeds up to 55 miles per hour only. See applicable guarantee or warranty, available at gaf.com, for complete coverage and restrictions. Enhanced wind coverage may be available for purchase for eligible systems. Contact GAF for more information.

² GAF warranties and guarantees do not provide coverage against hail except where additional hail or puncture resistance coverage is purchased on eligible jobs. Refer to gaf.com for more information on warranty and guarantee coverage and restrictions.



Fire Resistance Classifications

DensDeck® Prime Roof Boards are excellent fire barriers over combustible and noncombustible roof decks, including steel decks.

UL 790 Classification. DensDeck® Prime Roof Boards have been classified by Underwriters Laboratories LLC (UL) for use as a fire barrier over combustible and noncombustible decks in accordance with the ANSI/UL 790 and ULC CAN-S114 test standard. The UL classification includes a comprehensive Class A, B, or C rating. For additional information concerning the UL 790 classification, see UL Product IQ at productiq.ulprospector.com/.

UL 1256 Classification. DensDeck® Prime Roof Boards have also been classified by UL in roof deck constructions for internal (under deck) fire exposure in accordance with the ANSI/UL 1256 Steiner Tunnel test. For additional information concerning the UL 1256 classification, consult UL Product IQ at productiq.ulprospector.com/.

FM Class 1 Approvals. DensDeck® Prime Roof Boards are included in numerous roofing assemblies with a Factory Mutual (FM) Class 1 fire rating. 1/4" (6.4 mm) DensDeck® Prime Roof Boards have passed testing under the FM Calorimeter Standard 4450 and have been approved by FM as such for insulated steel

deck roofs when installed according to the conditions identified by FM. For more information concerning FM Approvals and FM Class 1 assemblies with DensDeck® Prime Roof Boards, consult FM or see roofnav.com for specific assemblies.

Type X. 5/8" (15.9 mm) DensDeck® Prime Roof Boards are manufactured to meet the "Type X" requirements of ASTM C1177 for increased fire resistance beyond regular gypsum board.

UL Fire Resistance Ratings. 5/8" (15.9 mm) DensDeck® Prime Roof Boards are designated as Type DD by UL and included in assembly designs investigated by UL for hourly fire resistance ratings. 5/8" (15.9 mm) DensDeck® Prime Roof Boards may also replace any unclassified 5/8" (15.9 mm) gypsum board in an assembly in the UL Fire Resistance Directory under the prefix "P."

Flame spread and smoke developed. When tested in accordance with ASTM E84, DensDeck® Prime Roof Boards had Flame Spread 0, Smoke Developed 0.

Wind Uplift

DensDeck® Prime Roof Boards are included in numerous assemblies evaluated by FM or other independent laboratories for wind uplift performance. For information concerning such assemblies, please visit roofnav.com.

PHYSICAL PROPERTIES			
PROPERTIES	1/4" (6.4 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)
Thickness, nominal	1/4" (6.4 mm) ± 1/16" (1.6 mm)	1/2" (12.7 mm) ± 1/32" (0.8 mm)	5/8" (15.9 mm) ± 1/32" (0.8 mm)
Width, standard	4' (1,219 mm) ± 1/8" (3 mm)	4' (1,219 mm) ± 1/8" (3 mm)	4' (1,219 mm) ± 1/8" (3 mm)
Length, standard	4' (1,219 mm) & 8' (2,438 mm) ± 1/4" (6.4 mm)	4' (1,219 mm) & 8' (2,438 mm) ± 1/4" (6.4 mm)	4' (1,219 mm) 8' (2,438 mm) ± 1/4" (6.4 mm)
Weight nominal, lb./sq. ft. (kg/m²)	1.2 (5.9)	2.0 (9.8)	2.5 (12.2)
Surfacing	Fiberglass mat with non-asphaltic coating	Fiberglass mat with non-asphaltic coating	Fiberglass mat with non-asphaltic coating
Flexural Strength ¹ , parallel, lbf. min. (N)	≥40 (178)	≥80 (356)	≥100 (444)
Flute Spanability ²	2 5/8" (66.7 mm)	5" (127 mm)	8" (203 mm)
Permeance ³ , perms (ng/Pa•S•m²)	>30 (>1710)	>23 (>1300)	>17 (>970)
R-Value ⁴ , ft²•°F•hr/BTU (m²•K/W)	.28	.56	.67
Lineal Variation with Change in Temp., in/in °F (mm/mm/°C)	8.5 x 10 ⁻⁵ (15.3 x 10 ⁻⁶)	8.5 x 10 ⁻⁵ (15.3 x 10 ⁻⁶)	8.5 x 10 ⁻⁵ (15.3 x 10 ⁻⁶)
Lineal Variation with Change in Moisture	6.25 x 10 ⁻⁵	6.25 x 10 ⁻⁵	6.25 x 10 ⁻⁵
Water Absorption ⁵ , % max	5	5	5
Compressive Strength ⁵ , psi nominal	900	900	900
Surface Water Absorption, grams, nominal ¹	1.0	1.0	1.0
Flame Spread, Smoke Developed (ASTM E84, UL 723, CAN/ULC-S102)	0/0	0/0	0/0
Bending Radius	4' (1,219 mm)	6' (1,829 mm)	8' (2,438 mm)

¹ Tested in accordance with ASTM C473 method B.

² Tested in accordance with ASTM E661.

³ Tested in accordance with ASTM E96 (dry cup method).

⁴ Tested in accordance with ASTM C518 (heat flow meter).

⁵ Specified values per ASTM C1177.

⁶ Tested in accordance with ASTM C473.

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