

# DensDeck® Prime Roof Board



## Overview

DensDeck Prime Roof Board's patented design features a gypsum core with embedded glass mat facers on the top and bottom of the board. DensDeck Prime can be used in a variety of commercial roof systems and provides an excellent thermal barrier as well as exceptional fire, moisture, and wind uplift resistance properties.

DensDeck Prime is typically used as a cover board over insulation in fully adhered EPDM, TPO, and PVC applications. It is compatible with solvent-based bonding adhesives. For applications in which Carlisle's FAST™, or Flexible FAST Adhesive is used to attach insulation and a vapor barrier is specified, DensDeck Prime can be used as a base layer for Carlisle's VapAir™ Seal 725TR Air and Vapor Barrier (in conjunction with CCW 702-LV or CAV-GRIP™ Primer). DensDeck Prime is also compatible with hot asphalt and can be used as a membrane underlayment in hot mopped roofing systems or as a parapet wall substrate in all systems.

## Features and Benefits

- » UL code ratings available for high slopes and wood decks
- » FM Approved
- » Improves resistance to foot traffic and hail damage
- » Excellent wind uplift ratings
- » Resistant to deterioration, warping, and jobsite damage
- » 5/8 DensDeck Prime can replace any generic type "X" gypsum board in any roof assembly in the UL Fire Resistance Directory under the prefix "P"

## Installation

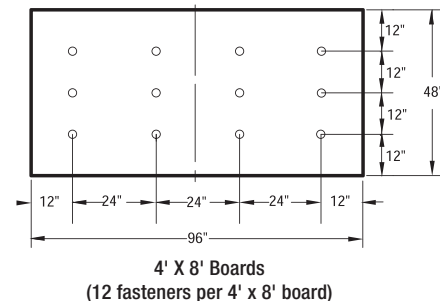
DensDeck Prime may be secured with FAST Adhesive, fastened in accordance with an approved fastening pattern, or mopped with Type III or IV asphalt.

Edge joints should be located on and parallel to deck ribs. End joints of adjacent lengths should be staggered.

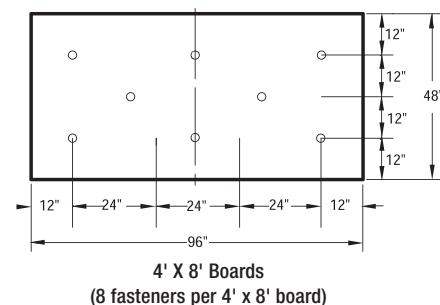
1. This material shall be installed with ends and edges butted tightly.
2. When installed over combustible wood decks or insulations, all joints should be staggered.
3. In accordance with approved shop drawings, FM Approved fasteners shall be installed with plates through the roof board, flush with the surface.
4. When attaching VapAir Seal 725TR, use DensDeck Prime in conjunction with CCW-702, 702-LV, or CAV-GRIP Primer.

*Review Carlisle specifications and details for complete installation information.*

### FM Approvals 1-90 1/4" DensDeck Prime Cover Board



### FM Approvals 1-90 1/2" or 5/8" DensDeck Prime Cover Board



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## Precautions

- » Panels must be kept dry before, during and after installation. Apply only as much roof board as can be covered by roof membrane in the same day.
- » When applying solvent-based adhesives or primers, allow sufficient time for the solvents to flash off.
- » ¼" DensDeck Prime is not recommended for vertical parapet applications.
- » In ballasted roofing systems, DensDeck Prime is not an acceptable membrane underlayment.

## Ratings and Certifications

- » Manufactured to conform to ASTM C-1177
- » Tested in accordance with ASTM E-84 or CAN/ULC-S102
- » Non-combustible when tested in accordance with ASTM E-136
- » UL Classified when tested in accordance with ASTM E-119

## LEED® Information

Manufacturing Location <sup>1</sup>	Total Recycled Content <sup>2</sup>	Pre-Consumer Recycled Content <sup>2</sup>	Post-Consumer Recycled Content <sup>2</sup>
Acme, TX	0%	0%	0%
Antioch, CA	0%	0%	0%
Ft. Dodge, IA	0%	0%	0%
Las Vegas, NV	0%	0%	0%
Lovell, WY	0%	0%	0%
Newington, NH	30%	30%	0%
Savannah, GA	0%	0%	0%
Tacoma, WA	14%	14%	0%
Wheatfield, IN	94%	94%	0%

<sup>1</sup> Manufacturing locations subject to change. Please visit [www.gpgypsum.com](http://www.gpgypsum.com) and click on Sustainability.

<sup>2</sup> Recycled content subject to change +/- 1.0%.

<sup>3</sup> Based on ICC Evaluation Service Verification of Attributes Report for Dens® brand products issued August 1, 2009. [www.saveprogram.icc-es.org](http://www.saveprogram.icc-es.org)

## Typical Properties and Characteristics

Properties	¼" (6.4 mm)	½" (12.7 mm)	¾" (15.9 mm)
Thickness, nominal	¼" (6.4 mm) ± ⅛" (1.6 mm)	½" (12.7 mm) ± ⅛" (.8 mm)	¾" (15.9 mm) ± ⅛" (.8 mm)
Width, standard	4' (1219 mm) ± ⅛" (3 mm)	4' (1219 mm) ± ⅛" (3 mm)	4' (1219 mm) ± ⅛" (3 mm)
Length, standard	4' (1219 mm) 8' (2438 mm) ± ¼" (6.4 mm)	4' (1219 mm) 8' (2438 mm) ± ¼" (6.4 mm)	4' (1219 mm) 8' (2438 mm) ± ¼" (6.4 mm)
Weight, nominal, lbs./sq. ft. (Kg/m²) <sup>7</sup>	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 <sup>1</sup> , parallel, lbf. min. (N)	≥ 40 (178)	≥ 80 (356)	≥ 100 (444)
Flute Spanability <sup>2</sup>	2⅝" (67 mm)	5" (127 mm)	8" (203 mm)
Permeance <sup>3</sup> , perms (ng/Pa•S•m²)	> 30 (>1710)	> 23 (>1300)	> 17 (>970)
R Value <sup>4</sup> , ft²•°F•hr/BTU (m²•K/W)	0.28	0.56	0.67
Linear Variation with Change in Temp., in/in °F (mm/mm/°C)	8.5 x 10 <sup>-6</sup> (15.3 x 10 <sup>-6</sup> )	8.5 x 10 <sup>-6</sup> (15.3 x 10 <sup>-6</sup> )	8.5 x 10 <sup>-6</sup> (15.3 x 10 <sup>-6</sup> )
Linear Variation with Change in Moisture	6.25 x 10 <sup>-6</sup>	6.25 x 10 <sup>-6</sup>	6.25 x 10 <sup>-6</sup>
Water Absorption <sup>5</sup> , %	5	5	5
Compressive Strength <sup>6</sup> , psi nominal <sup>1</sup>	900	900	900
Surface Water Absorption, grams, nominal	1.0	1.0	1.0
Flame Spread, Smoke Developed (ASTM E84)	0/0	0/0	0/0
Bending Radius	4' (1219 mm)	6' (1829 mm)	8' (2438 mm)

<sup>1</sup> Tested in accordance with ASTM C473 method B.

<sup>2</sup> Tested in accordance with ASTM E661.

<sup>3</sup> Tested in accordance with ASTM E96 (dry cup method).

<sup>4</sup> Tested in accordance with ASTM C518 (heat flow meter).

<sup>5</sup> Tested in accordance with ASTM C1177.

<sup>6</sup> Tested in accordance with ASTM C473.

<sup>7</sup> Represents approximate weight for design and shipping purposes. Actual weight may vary based on manufacturing location and other factors.