



DENSDECK

SYSTEM ACCESSORIES

DENSDECK PRIME™/DENSDECK®

DensDeck and DensDeck Prime are exceptional fire barriers, thermal barriers and recover boards used in various commercial roofing systems. The patented design employs glass mat facers front and back. They are embedded into a water resistant gypsum core providing excellent fire resistance, moisture resistance and wind uplift properties. They have also been shown to withstand deterioration, warping and jobsite damage.

These products are FM tested and approved as the only ½" gypsum products to meet the calorimeter requirements for conventionally insulated decks. Tested in accordance with ASTM E84, their surface-burning characteristics are Flame Spread-0 and Smoke Developed-0. DensDeck and DensDeck Prime (⅝" thick) can replace any generic Type X gypsum board in any roof assembly in the UL Fire Resistance Directory under the prefix "P."

PRIMARY USAGE – DENSDECK PRIME

- Typical usage in fully adhered EPDM and TPO applications as overlayment board.
- In place of high-density wood fiberboard over insulations. (ex. Extruded Polystyrene or EPS)
- Compatible with solvent-based bonding adhesives and over polyisocyanurate insulation when additional compressive strength is desired.
- Used as a base layer for 725 Self-Adhering Air and Vapor Barrier in conjunction with CCW-702 Primer on applications where DASH DC™ Adhesive is used to attach insulation and also used as a vapor retarder.
- Can be used as a parapet wall substrate for all systems.

PRIMARY USAGE – DENSDECK

- Primarily used in Mechanically Attached roofing applications as an overlayment board.
- Used in lieu of high-density wood fiberboard over insulations. (ex. Extruded Polystyrene or EPS)
- Used over polyisocyanurate insulation when additional compressive strength is desired for roofs subjected to increased foot traffic or to increase resistance from hail damage.
- Heavily utilized in wood deck constructions to achieve UL/FM fire ratings.
- Resists growth of mold and mildew per ASTM D3273.

FEATURES AND BENEFITS

- Codes - higher slopes, wood deck approvals
- Cover board - foot traffic, hail damage
- Reduced fastening
- FM uplift approvals - ¼" thick meets 60- and 90-psf uplift; ½" and ⅝" thick - meet FMRC 1-60, 1-90

LIMITATIONS

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

TECHNICAL DATA

- Manufactured to conform to ASTM C1177.
- Tested in accordance with ASTM E84 or CAN/ULC-S102. Non-combustible when tested in accordance with ASTM E136.
- DensDeck Prime: UL Classified when tested in accordance with ASTM E119.

INSTALLATION

DensDeck and DensDeck Prime may be fastened in accordance with an approved fastening pattern (see reverse) or secured with FAST™ 100 Adhesive, DASH DC Insulation Adhesive or mopped with Type III or IV Asphalt. Ribbon-or spot-mopping is recommended with Type IV Asphalt.

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

1. Shall be installed with ends and edges butted tightly.
2. Where 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 725 Self-Adhering Air and Vapor Barrier, use only DensDeck Prime in conjunction with CCW-702, 702-LV or CAV-GRIP Primers.



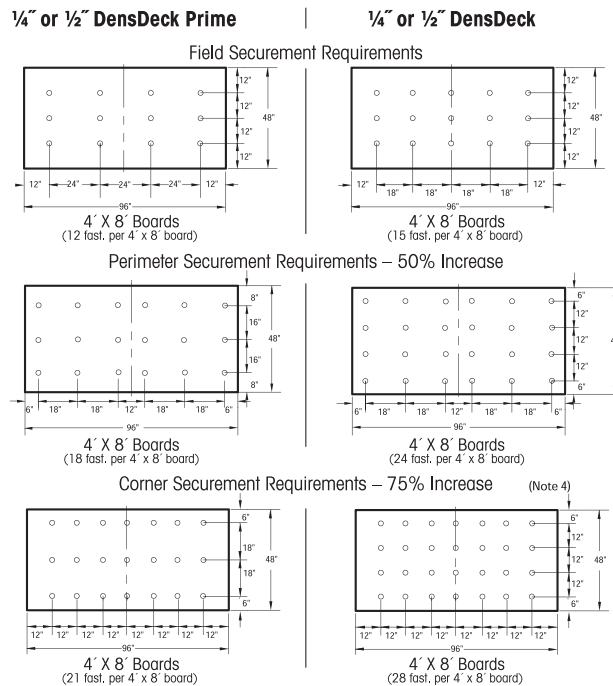
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DensDeck/ DensDeck Prime fastening criteria to conform with factory mutual (FM) 1-90 ratings on Versico Fully Adhered Roofing Systems⁽¹⁾⁽²⁾⁽³⁾

Notes:

1. For wind uplift/FMRC compliance where dens-deck or dens-deck prime is mechanically attached to metal decks. These products shall be installed to the specifics of the FMRC design assembly.
2. Contact Versico for fastening density requirements for other FM ratings available.
3. Metal insulation fastener plates must be used with their corresponding FM approved fastener.
4. If parapets are min. 3' continuous around entire building, a 50% fastening increase is acceptable at corners. See pattern.



Physical Properties

Property	ASTM (Method)	DensDeck or DensDeck Prime		
		1/4"	1/2"	5/8"
Thickness, nominal inches		1/4"	1/2"	5/8"
Width, standard		4'	4'	4'
Length, standard		8' ± 1/4"	8' ± 1/4"	8' ± 1/4"
Weight, lbs/sq. nominal		1.1	1.95	2.5
Surfacing		Glass Mat*	Glass Mat*	Glass Mat*
Flexural Strength, Parallel, lbs. min.	C473 E1177 minimums	40	80	100
Flexural Strength, Perpendicular, lbs. min.	C473 E1177 minimums	50	100	140
Flute Spanability	E661 (400 lb. conc. load)	2 ⁵ / ₈ "	5"	8"
Permeance Perms	C335 (dry cup method)	50	35	32
R-value	C518 (heat flow meter)	.28	.56	.67
Coefficient of Thermal Expansion in/in/°F		8.5 x 10 ⁻⁶	8.5 x 10 ⁻⁶	8.5 x 10 ⁻⁶
Linear Variation with Change in Moisture in/in/%/RH		6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶
Absorption, % max.	C473	10.0	10.0	10.0
Compression, psi		500	500	500
Surface Water Absorption, grams	C473	2.5	2.5	2.5
Flame Spread – Smoke Developed	E84	0	0	0
Fire Classification		UL 1256 UL C.S-126 UL Class A ULC S-102 UL 790	FMRC CLASS 1 UL 1256 ULC S-126 UL Class A ULC S-107 UL 790	FMRC CLASS 1 UL Classified "P" assemblies ULC S-101

*DensDeck Prime incorporates a glass mat/primed surface.