

DensDeck[®]

Prime Roof Board

January 2025

DESCRIPTION:

DensDeck Prime Roof Board has been enhanced to provide a broader compatibility and higher performance with roofing adhesives. Face mat enhancements allow adhesives to be applied more uniformly and consistently. In adhered, single ply membrane testing, enhanced DensDeck Prime demonstrated an average of 24% better bond than the original products, when using solvent based adhesives. (Average based on 60 sq.ft./gal coverage rates)* Choose DensDeck Prime Roof Boards for adhered and self-adhered "peel & stick" roofing systems.

Enhanced DensDeck Prime Roof Boards create a stronger and more economical installation by reducing the amounts of mastic or adhesive used and potentially eliminates the field primer. Consult with membrane manufacturer for actual priming requirements.

DensDeck Prime Roof Boards are the first and only fiberglass mat gypsum roof boards with a 90-day weather exposure limited warranty when applied vertically on a parapet wall.** (Limited to 12.7 mm and 15.9 mm products only.)

PRIMARY USES:

Roof system manufacturers and designers have found DensDeck Prime Roof Board to be compatible with many types of roofing systems, including: modified asphalt, single-ply, metal systems, recover board, as well as an overlayment for polyisocyanurate and polystyrene insulation. DensDeck Prime Roof Board can also be used as a form board for poured gypsum concrete deck in roof applications as well as a substrate for foam spray roofing systems. 12.7 mm and 15.9 mm DensDeck Prime Roof Board 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 allow the bonding of cold mastic modified bitumen and torching directly to the surface. Consult with the system manufacturer for recommendations on this application.

DensDeck Prime Roof Board is the preferred substrate for vapour retarders.

**Testing was done in accordance with FM approvals 4470, Appendix C: Small Scale Tests, Membrane Delamination Tests for Roofing Membranes and Substrates Using Tensile Loading.*

***For complete warranty details, visit www.DensDeck.com (Limited to 12.7 mm and 15.9 mm products only).*

STANDARDS AND CODE APPROVALS:

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

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

TECHNICAL DATA:

Properties	6.4 mm (special order only)	12.7 mm (standard stock)	15.9 mm (special order only)
Thickness, nominal	6.4 mm ± 1.6 mm	12.7 mm ± 0.8 mm	15.9 mm ± 0.8 mm
Width, standard	1219 mm ± 3 mm	1219 ± 3 mm	1219 mm ± 3 mm
Length, standard	1219 mm and 2438 mm ± 6.4 mm	1219 mm and 2438 mm ± 6.4 mm	1219 mm and 2438 mm ± 6.4 mm
Weight, nominal, kg/m ²	5.9	9.8	12.2
Surfacing	Fibreglass mat with non-asphaltic coating	Fibreglass mat with non-asphaltic coating	Fibreglass mat with non-asphaltic coating
Flexural strength ¹ , parallel, N	178	356	444
Flute spanability ²	66.7 mm	127 mm	203 mm
Permeance ³ , ng/Pa·S·m ²	>1710	>1300	>970
R Value ⁴ m ² ·K/W	0.28	0.56	0.67
Linear variation with change in temp., mm/mm/C°	15.3 x 10 ⁻⁶	15.3 x 10 ⁻⁶	15.3 x 10 ⁻⁶
Linear variation with change in moisture	6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶

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TECHNICAL DATA continued:

Properties	6.4 mm (special order only)	12.7 mm (standard stock)	15.9 mm (special order only)
Flame spread, smoke developed (ASTM E84)	0/0	0/0	0/0
Bending radius	1219 mm	1829 mm	2438 mm
Water absorption ⁵ , % max	5	5	5
Compressive strength ⁶ , psi nominal	900	900	900
Surface water absorption, grams, nominal	1.0	1.0	1.0

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.

RECOMMENDATIONS & LIMITATIONS:

- DensDeck Prime Roof Boards are manufactured to act with a properly designed roof system following good roofing practices. The actual use of DensDeck Prime Roof Board as a roofing component in any system or assembly is the responsibility of the roofing system's design authority. Consult with the appropriate system manufacturer and/or design authority for system and assembly specifications and instructions on applying other products to DensDeck Prime Roof Board. Georgia-Pacific does not warrant and is not responsible for any systems or assemblies utilising DensDeck Prime Roof Board or any component in such systems or assemblies other than DensDeck Prime Roof Board.
- The need for a separator sheet between the DensDeck Prime Roof Board and the roofing membrane must be determined by the roof membrane manufacturer or roofing system designer.
- Confirm any priming requirements with the membrane manufacturer. 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. Provide suitable roofing system protection when required.
- When using DensDeck Prime Roof Boards for hot-mopped applications, Georgia-Pacific recommends maximum asphalt application temperatures of 218°C to 232°C. Application temperatures above these recommended temperatures may adversely affect roof system performance. Consult and follow the roofing system manufacturer's specification for full mopping applications and temperature requirements.
- When using DensDeck Prime Roof Board as a substrate for torch applications, ensure that the product is dry and that the proper torching technique is used. Limit the heat to the DensDeck Prime Roof Board. Maintain a majority of the torch flame directly on the roll.
- Conditions beyond the control of Georgia-Pacific, such as weather conditions, dew, leaks, application temperatures and techniques may cause adverse effects with roofing systems.

HANDLING & USE - CAUTION:

This product contains fibreglass facings which may cause skin irritation. Dust and fibres produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimise 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.



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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. DensDeck Prime Roof Board stored outside must be stored level and off the ground and protected by a breathable waterproof covering. Provide means for air circulation around and under stored bundles of DensDeck Prime Roof Board. DensDeck Prime Roof Board must be covered the same day as installed.

Avoid application of DensDeck Prime Roof Boards during rain, heavy fog and any other conditions that may deposit moisture on the surface, and avoid the overuse of non-vented, direct-fired heaters during winter months. When roofing systems are installed on new poured concrete or light weight concrete decks or when re-roofing over an existing concrete deck, a vapour 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 DensDeck Prime Roof Boards.

Moisture vapour movement by convection must be eliminated, and the flow of water by gravity through imperfections in the roof system must be controlled. After a leak has occurred, no condensation on the upper surface of the system should be tolerated, and the water introduced by the leak must be dissipated to the building interior in a minimum amount of time.

Although DensDeck Prime Roof Boards are engineered with fibreglass 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 roof membranes. For example, hot asphalt applications can blister; torched modified bitumen may not properly bond; and adhesives for single ply membranes may not dry properly.

Moisture accumulation may also significantly decrease wind uplift and vertical pull resistance in the system or assembly. DensDeck Prime Roof Boards containing excessive free moisture content may need to be evaluated for structural stability to assure wind uplift performance.

FIRE RESISTANCE CLASSIFICATIONS:

DensDeck Prime Roof Boards are excellent fire barriers over combustible and non-combustible 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 non-combustible decks in accordance with the ANSI/UL 790 test standard. The UL classification includes a comprehensive Class A, B or C rating. For additional information concerning the UL 790 classification, consult the UL Certification Directory.

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 the UL Certification Directory.

FM Class 1 Approvals: DensDeck Prime Roof Boards are included in numerous roofing assemblies with a Factory Mutual (FM) Class 1 fire rating. 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 RoofNav[®].

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 Board are included in numerous assemblies evaluated by FM or other independent laboratories for wind uplift performance. For information concerning such assemblies, please visit www.roofnav.com.



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FIRE SAFETY CAUTION:

Passing a fire test in a controlled laboratory setting and/or certifying or labelling a product as having a one-hour, two hour, or any other fire resistance or protection rating and therefore, as acceptable for use in a certain fire rated assemblies/systems, does not mean that either a particular assembly/system incorporating the product, or any given piece of the product itself, will necessarily provide one-hour fire resistance, two-hour fire resistance, or any other specified fire resistance or protection in an actual fire. In the event of an actual fire, you should immediately take any and all actions necessary for your safety and the safety of others without regard for any fire rating of any product or assembly/system.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
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MANUFACTURERS CONTACT DETAILS:

Manufacture location	USA
Legal and trading name of manufacturer	Georgia-Pacific LLC
Manufacturer address for service	133 Peachtree Street, Atlanta, GA 30303, USA
Manufacturer website	www.densdeck.com
Manufacturer email	
Manufacturer phone number	+1 800 225 6119
Manufacturer NZBN	