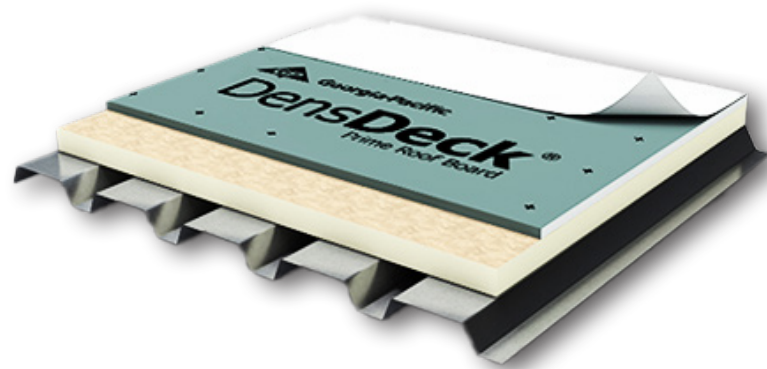


Product Description

DensDeck® Prime Roof Board features a reinforced gypsum core with primed fiberglass mat facers that provide enhanced compatibility with roofing membrane adhesives. It is used as a substrate board, thermal barrier, or cover board in mechanically attached or adhered Kingspan roofing systems, providing excellent fire resistance, wind uplift properties, and Severe Hail (SH) performance. Kingspan's system approvals can be found in FM Roofnav. DensDeck® Prime meet ASTM C 1177 test requirements.



Manufactured in the U.S.A.

DensDeck® Prime Roof Board is manufactured in the U.S.A. with globally sourced materials.



Features & Benefits

- **Resilient Performance:** provides top-tier fire and puncture resistance, wind uplift protection, and Severe Hail (SH) performance.
- **Improved Versatility:** an ideal choice for mechanically fastened, adhered, and partially adhered roofing systems, it offers a superior bonding surface for Kingspan TPO membranes and the Kingspan Vapor Barrier SAR.
- **Better Results:** improve membrane bond strength and achieve a stronger, longer-lasting roof.
- **Ease of Installation:** enhanced adhesion eliminates unnecessary steps and reduces priming material usage.
- **Durability:** designed to withstand wear, weather, and heavy foot traffic.
- **Water Absorption:** offers 5% water absorption resistance by weight, and 1-gram nominal surface water absorption performance on both sides of the board.
- **Meet ASTM C 1177 test requirements.**
- **Codes Approvals:** included in Kingspan system FM and UL assemblies.
- Available in 4' x 4' and 4' x 8' board dimensions with 1/4", 1/2", or 5/8" board thickness options.

System Installation Options

- **Mechanically Attached System (Fasteners & Plates)** – most common attachment method where fasteners and plates are used to attach TPO membrane, insulation, and / or other roofing materials to the roof deck, including DensDeck® Prime Roof Board, in accordance with Kingspan's TPO fastening rate requirements.
- **Mechanically Attached System (Induction-Welded)** – where the membrane is attached over an approved substrate, including DensDeck® Prime Roof Board and Kingspan polyiso insulation, using induction welded plates.
- **Adhered System** – where DensDeck® Prime Roof Board is used as a cover board with a Kingspan TPO membrane adhered on top of it.

Codes & Approvals

DensDeck® Prime Roof Boards are manufactured to meet ASTM C 1177 and meet the following standards and classifications:

- UL 790 classified as a fire barrier over combustible and non-combustible roof decks, including steel decks.
- UL 1256 classified in roof deck constructions for internal (under deck) fire exposure.
- FM Class 1 Approvals: DensDeck® Prime Roof Boards are included in numerous roofing assemblies with a Factory Mutual (FM) Class 1 fire rating.

Codes & Approvals (continued)

- Flame Spread and Smoke Performance: When tested in accordance with ASTM E 84, DensDeck® Prime Roof Boards had Flame Spread 0, Smoke Developed 0.
- When used as part of a UL 1256 or FM 4450 classified system, no additional thermal barrier is required per IBC.

Application

- 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 Kingspan TPO roofing systems are installed on new poured concrete or light weight concrete decks or when re-roofing over an existing concrete deck, the Kingspan Vapor Barrier SAR should be installed above the concrete to limit the migration of water from the concrete into the roof assembly.
- Always consult the Kingspan Application Guide to install DensDeck® Prime Roof Board in accordance with Kingspan's TPO specifications and requirements.

Safety Precautions

- Use proper equipment and assistance when moving, lifting, handling, or transporting DensDeck® Prime Roof Board to avoid personal injuries as well as damage to the material.
- Reference the Kingspan product Safety Data Sheet for additional safety information.

Storage & Moisture Management

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

- Remove the plastic packaging from all DensDeck® Prime Roof Boards immediately upon receipt of delivery. Failure to remove the plastic packaging may result in entrapment of condensation or moisture.
- DensDeck® Prime Roof Boards 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 Boards.
- DensDeck® Prime Roof Boards must be covered the same day as installed.
- 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.

Typical Physical Properties

Properties	DensDeck® Prime Roof Board Thickness		
	1/4"	1/2"	5/8"
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 ft. (1,219 mm) ± 1/8" (3 mm)	4 ft. (1,219 mm) ± 1/8" (3 mm)	4 ft. (1,219 mm) ± 1/8" (3 mm)
Length, standard	4 ft. (1,219 mm) ± 1/8" (3 mm) and 8 ft. (2,438 mm) ± 1/4" (6.4 mm)	4 ft. (1,219 mm) ± 1/8" (3 mm) and 8 ft. (2,438 mm) ± 1/4" (6.4 mm)	4 ft. (1,219 mm) ± 1/8" (3 mm) and 8 ft. (2,438 mm) ± 1/4" (6.4 mm)
Weight, nominal lbs./sq. ft. (kg/m ²)	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" (67 mm)	5" (127 mm)	8" (203 mm)
Permeance ³ , Perms (ng/Pa·S·m ²)	>30 (>1,710)	>23 (>1,300)	>17 (>970)
R Value ⁴ , ft ² ·°F·hr/BTU	0.28	0.56	0.67
Linear Variation with Change in Temperature, in/in °F (mm/mm/°C)	8.5 x 10 ⁻⁶ (15.3 x 10 ⁻⁶)	8.5 x 10 ⁻⁶ (15.3 x 10 ⁻⁶)	8.5 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
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
Flame Spread, Smoke Developed (ASTM E 84)	0/0	0/0	0/0
Bending Radius	4 ft. (1,219 mm)	6 ft. (1,829 mm)	8 ft. (2,438 mm)

1 Tested in accordance with ASTM C 473 method B.

2 Tested in accordance with ASTM E 661.

3 Tested in accordance with ASTM E 96 (dry cup method).

4 Tested in accordance with ASTM C 518 (heat flow meter).

5 Specified values in accordance with ASTM C 1177.

6 Tested in accordance with ASTM C 473.

Product & Packaging Information

Ordering SKU	Board Thickness	Board Dimensions
600000001376	1/4"	4 ft. x 4 ft.
600000001375	1/2"	4 ft. x 4 ft.
600000001377	5/8"	4 ft. x 4 ft.
600000001379	1/4"	4 ft. x 8 ft.
600000001378	1/2"	4 ft. x 8 ft.
600000001380	5/8"	4 ft. x 8 ft.

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