GEORGIA PACIFIC BUILDING PRODUCTS, LLC
SECTION 07 22 20 – Roof Boards

SPECIFIER NOTE: This specification section is designed to provide guidance when specifying the ***Portfolio of DensDeck® Roof Boards***

The Portfolio of DensDeck® Roof Boards are fiberglass mat-faced, noncombustible (as described and tested in accordance with ASTM E136), nonstructural, gypsum core roof board panels.

BASIC USE: compatible with many types of roofing systems, including built-up, modified bitumen, single ply, metal systems, hot mop or torch, wood shingle and shake, tile, slate, as well as a recovery board and overlayment protection board for polyisocyanurate and polystyrene insulation. ***The Portfolio of DensDeck Roof Board*** can also be used as a form board for poured gypsum concrete deck in roof applications as well as a substrate for spray foam roofing systems. 1/2" (12.7 mm) and 5/8" (15.9 mm). ***The Portfolio of DensDeck Roof Board*** may also be used in vertical applications as a backer board or liner for the roof side of parapet walls. Some membrane manufacturers allow for application directly to ***DensDeck Prime Roof Board*** without using a primer or base sheet. Consult with the system manufacturer for their recommendations with this application. ***The Portfolio of DensDeck Roof Board is*** the preferred substrate for vapor retarders.

SUMMERY OF BENEFITS: The Portfolio of DensDeck Roof Board design employs fiberglass mats front and back that are mechanically bonded to a high-density gypsum core, providing excellent fire resistance and wind uplift properties. The unique construction of DensDeck Roof Board provides superior flute spanning that stiffens and provides increased foot traffic resistance to the roof deck.

DensDeck® Prime, DensDeck® ProFast™™ Prime, and DensDeck® StormX™ Prime are enhanced with EONIC™ Technology, a patented system that delivers advanced moisture performance and mat-to-core bond strength.

DensDeck® StormX™ Prime is the first of its kind to be FM classified for VSH in a single ply assembly, when using an adhered standard 60 mil TPO/PVC bare back membrane. Enhanced strength and impact resistance helps protect against extreme hail, wind, uplift, punctures and fire.

DensDeck® ProFast™ Prime is innovative, lightweight roofing solution designed to enhance performance, efficiency, and cost savings in roofing applications. Approximately 20% lighter than the 1/2" DensDeck® Prime Roof Board, it offers superior maneuverability, making it easier to transport, handle, and install without compromising strength, durability, or dimensional stability when installed in a properly designed roof assembly

FOR TECHNICAL OR SALES SUPPORT CONTACT:
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Roof Board

SECTION 07 22 20
Roof Board

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Section Includes: Fiberglass-mat faced gypsum roof boards for application directly under roof membrane systems.

1.2 RELATED SECTIONS

Specifier Note: EDIT LIST BELOW TO CONFORM TO PROJECT REQUIREMENTS. VERIFY SECTION NUMBERS AND TITLES.

A. Division 01 Section "Sustainable Design Requirements" for additional requirements, including [LEED] documentation requirements.
B. [Section 014000 Quality Requirements;] [Section 014529 Testing Laboratory Services;] [Section 014533 Code-Required Special Inspections and Procedures;] coordination with owners' independent testing and inspection agency
C. Section 014339 Mock-Ups
D. Section 061000 Rough Carpentry
E. Section 075000 Roofing Membrane

1.3 REFERENCE STANDARDS

A. Underwriters Solutions (UL) in Cananda
   1) CAN/ULC-S102 Surface Burning Characteristics of Building Materials and Assemblies
A. ASTM- - American Society for testing and Material Standards www.astm.org
   1) ASTM C209 Standard Test Method for Cell. Fiber Insulating Board
   2) ASTM C472 Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete.
   3) ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products.
   4) ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
   5) ASTM C1177/C1177M Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
   6) ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
   7) ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
   8) ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
   9) ASTM E108 Standard Test Methods for Fire Tests of Roof Coverings

10) ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 C.
11) ASTM E661 Standard Test Method for Performance of Wood and Wood-Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads.

B. Building Codes and Standards
1) 2021, 018, 2015, and 2009 IBC International Building Code
2) 2021, 2018, 2015, 2012, and 2009 IRC International Residential Code
3) 2021, 2018, 2015, and 2009 IECC International Energy Conservation Code
4) Florida Building Code: Roof boards shall have Florida Product Approval and Miami-Dade County Product Control Approval.

D. Factory Mutual (FM) Approvals
1) Very Severe Hail (Class 1-VSH) rating

E. Underwriters Laboratory (UL) Solutions
1) UL 723 Standard Test Method for Determining the Surface Burning Characteristics of Building Materials
2) UL 790 Standard Test Methods for Fire Tests of Roof Coverings.
3) UL 1256 Standard for Fire Test of Roof Deck Constructions,

1.2 SUBMITTALS
A. Submittals: Submit in accordance with Division 1 requirements.
B. Product Data and Installation Instructions: Submit manufacturer's product data including sheathing and accessory material types, composition, descriptions and properties, and installation instructions.
C. Shop Drawings: Representative details of typical project conditions
D. Test Reports: Submit test reports indicating compliance with specified performance characteristics and requirements.
E. Evaluation reports: Accredited laboratory testing for materials.

1.3 WARRANTY
A. Sample warranty: Submit a sample warranty identifying the terms and conditions of the warranty as herein specified.

1.4 QUALITY ASSURANCE- PRECONSTRUCTION CONFRENCE
A. Conduct preconstruction conference onsite at project.
B. Mock-up construction and expectations
C. Testing and inspection requirements

1.5 QUALITY ASSURANCE- Material
A. Roof Boards manufactured to meet ASTM C1177.
B. Classified as Noncombustible under ASTM E136
C. Achieved a score of 10 of performance for mold resistance under ASTM D3273

1.6 QUALITY ASSURANCE- MOCK UP

A. Installation of the roof boards and various components of the building envelope representative of project conditions. [Section 014339 Mock-Ups.] [Section _____].

1.7 DELIVERY, STORAGE, AND HANDLING

A. All components used in roofing systems, shall be protected from exposure to moisture
B. Deliver and accept materials shall be in original bundles bearing the brand name, if any; applicable standard designation; and name of the manufacturer or supplier for whom the product is manufactured.
C. Remove any plastic packaging from roof boards immediately upon receipt of delivery. Failure to remove plastic packaging may result in entrapment of condensation or moisture, which may cause application problems that are not the responsibility of manufacturer
D. Store Roof Boards under cover and keep dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage.
E. Product shall be stored level, off the ground, and neatly stacked flat with care taken to prevent sagging or damage to edges, ends and surfaces.
F. Handle materials in accordance with the manufacturer's recommendation.

1.8 FIELD CONDITIONS

A. Application standards where applicable are in accordance with design assembly specifics, system manufacturer requirements and the product Technical Guide.
B. Do not install sheathing that is moisture damaged. Indications that panels are moisture damaged include, but not limited to, discoloration, sagging, or irregular shape.
C. All components used in roofing systems, shall be protected from exposure to moisture during and after installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

1) Basis-of-Designs: Provide fiberglass-mat faced gypsum roof boards – DensDeck® by Georgia-Pacific Building Products LLC 1-800-225-6119; email: techservices@gapac.com" www.buildgp.com or comparable products approved by the Architect in agreement with Division 1 General Requirements.

2.2 Products

A. Fiberglass-mat faced gypsum roof boards manufactured to meet ASTM C1177/C1177M
B. FIBERGLASS-MAT FACED GYPSUM ROOF BOARDS:

1) DensDeck® Roof Board – ¼" (6.4 mm), ½" (12.7 mm), 5/8" (15.9 mm) (Type X) Thickness

C. COATED PRIME FIBERGLASS-MAT FACED GYPSUM ROOF BOARDS:
1) DensDeck® Prime Roof Board – ¼" (6.4 mm), ½"(12.7 mm) , & 5/8" (15.9 mm) (Type X) Thickness
2) DensDeck® ProFast™ Prime Roof Board – 3/8" Thickness

D. FM-CLASSIFIED FOR VERY SEVERE HAIL (VSH) IN A PPROVED SINGLE-PLY MEMBRANE ASSEMBLY
1) DensDeck® StormX™ Roof Board – 5/8" (15.9 mm) (Type X) Thickness

2.3 PERFORMANCE

Specifier Note: If a flute span is desired, the following performance data applies to roof boards with a **maximum flute span of up to 2-5/8 in. (67 mm)**

A. FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Roof Board.*
2) Thickness: 1/4 in. (6.4 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 8 ft. (2438 mm)
5) Weight:1.2 lb/sq. ft. (5.9 kg/m2)
6) Surfacing: Fiberglass Mat.
7) Flexural Strength, Parallel (ASTM C473): >40 lbf, (178 N) minimum
8) Flute Span (ASTM E661): 2-5/8 in. (67 mm)
9) Permeance (ASTM E96): >50 Perms. (>2850 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.28.
11) Water Absorption (ASTM C473): 10 percent of weight max.
12) Surface Water Absorption (ASTM C473): Nominal <2.5 grams
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (UL 790 and ASTM E108): Class A
17) Mold Resistance (ASTM D3273): 10.

B. COATED PRIMED FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Prime Roof Board*
2) Thickness: 1/4 in. (6.4 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
5) Weight: 1.2 lbs./sq. ft. (5.9 kg/m2)
6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating

7) Flexural Strength, Parallel (ASTM C473): >40 lbf, (178 N) minimum
8) Flute Span (ASTM E661): 2-5/8 in. (67 mm)
9) Permeance (ASTM E96): >30 Perms. (>1710 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.28.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (UL 790 and ASTM E108): Class A
17) Mold Resistance (ASTM D3273): 10

Specifier Note: If a flute span is desired, the following performance data applies to roof boards with a **maximum flute span of up to 5 in. (127 mm)**

A. FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Roof Board*
2) Thickness: 1/2 in. (12.7 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 8 ft. (2438 mm)
5) Weight: 2.0 lbs./sq. ft. (9.8 kg/m2))
6) Surfacing: Fiberglass Mat.
7) Flexural Strength, Parallel (ASTM C473): >80 lbf, (358 N) min.
8) ProFlute Span (ASTM E661): 5 in. (127 mm)
9) Permeance (ASTM E96): >35 Perms. (>1995 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.56.
11) Water Absorption (ASTM C473): Less than 10 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 2.5 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (UL 790 and ASTM E108): Class A
17) Mold Resistance (ASTM D3273): Scored a 10

B. COATED PRIMED FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® ProFast™™ Prime Roof Board*
2) Thickness: 3/8 inch (9.3 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 8 ft. (2438 mm)
5) Weight:
6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
7) Flexural Strength, Parallel (ASTM C473): >80 lbf, (358 N) min.

8) Flute Span (ASTM E661): 5 inches.
9) Permeance (ASTM E96): >51 Perms. (> ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.54.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 2.2 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal ~880 (kPa).
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790): Class A
17) Mold Resistance (ASTM D3273): Scored a 10

C. COATED PRIME FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Prime Roof Board*
2) Thickness: 1/2 in. (12.7 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
5) Weight: 2.0 lbs./sq. ft. (9.8 kg/m2)
6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
7) Flexural Strength, Parallel (ASTM C473): ≥80 lbf. (356 N) min.
8) Flute Span (ASTM E661): 5 in. (127 mm)
9) Permeance (ASTM E96): >23 Perms. (>1300 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.56.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790): Class A
17) Mold Resistance (ASTM D3273): Scored a 10

Specifier Note: If a flute span is desired, the following performance data applies to roof boards with a **maximum flute span of up to 8 in. (203 mm) and "Type X"**

A. FIBERGLASS-MAT FACED GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Roof Board*
2) Thickness: 5/8 in. (15.9 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 8 ft. (2438 mm)
5) Weight: 2.5 lbs./sq. ft. (12.2 kg/m2)
6) Surfacing: Fiberglass Mat.

7) Flexural Strength, Parallel (ASTM C473): ≥100 lbf. (444 N) min
8) Flute Span (ASTM E661): 8 in. (203 mm)
9) Permeance (ASTM E96): >32 Perms. (>1824 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.67.
11) Water Absorption (ASTM C473): Less than 10 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 2.5 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790 and): Class A
17) "Type X" requirements of ASTM C1177: Yes
18) Mold Resistance (ASTM D3273): Scored a 10

B. COATED PRIME FIBERGLASS-MAT GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® Prime Roof Board.*
2) Thickness: 5/8 in. (15.9 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
5) Weight: 2.5 lbs./sq. ft. (12.2 kg/m2)
6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
7) Flexural Strength, Parallel (ASTM C473): ≥100 .lbf (444 N)
8) Flute Span (ASTM E661): 8 in. (203 mm)
9) Permeance (ASTM E96): >17 Perms. (>970 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.67.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 900 psi (6205 kPa).
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790): Class A
17) "Type X" requirements of ASTM C1177: Yes
18) Mold Resistance (ASTM D3273): Scored a 10

C. COATED PRIMED FIBERGLASS-MAT GYPSUM ROOF BOARD
1) Acceptable Product: *DensDeck® StormX™ Prime Roof Boards.*
2) Thickness: 5/8 in. (15.9 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
5) Weight: 3.0 lbs./sq. ft. (14.6 kg/m2)

6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
7) Flexural Strength, Parallel (ASTM C473): ≥ 200 .lbf (888 N)
8) Flute Span (ASTM E661): 18 in. (457 mm)
9) Permeance (ASTM E96): >17 Perms. (>970 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.67.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 1800 psi (12410 kPa)
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790): Class A
17) "Type X" requirements of ASTM C1177: Yes
18) Mold Resistance (ASTM D3273): Scored a 10

Specifier Note: If a flute span is desired, the following performance data applies to roof boards with a **maximum flute span of up to 18 in. (457 mm)**

A. COATED PRIMED FIBERGLASS-MAT GYPSUM ROOF BOARD
1) Acceptable Product: DensDeck® StormX™ Prime Roof Boards.
2) Thickness: 5/8 in. (15.9 mm)
3) Width: 4 ft. (1219 mm)
4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
5) Weight: 3.0 lbs./sq. ft. (14.6 kg/m2)
6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
7) Flexural Strength, Parallel (ASTM C473): ≥ 200 .lbf (888 N)
8) Flute Span (ASTM E661): 18 in. (457 mm)
9) Permeance (ASTM E96): >17 Perms. (>970 ng/Pa•S•m2)
10) R-Value (ASTM C518): 0.67.
11) Water Absorption (ASTM C473): Less than 5 percent of weight.
12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 1800 psi (12410 kPa)
14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
15) Combustibility (ASTM E136): Noncombustible
16) Fire resistance rating (ASTM E108 and UL 790): Class A
17) "Type X" requirements of ASTM C1177: Yes
18) Mold Resistance (ASTM D3273): Scored a 10

Specifier Note: The following performance data applies to roof boards that are **FM-CLASSIFIED FOR VERY SEVERE HAIL (VSH) IN A PPROVED SINGLE-PLY MEMBRANE ASSEMBLY**

A. COATED PRIMED FIBERGLASS-MAT GYPSUM ROOF BOARD
   1) Acceptable Product: DensDeck® StormX™ Prime Roof Boards.
   2) Thickness: 5/8 in. (15.9 mm)
   3) Width: 4 ft. (1219 mm)
   4) Length: 4 ft. (1219 mm) & 8 ft. (2438 mm)
   5) Weight: 3.0 lbs./sq. ft. (14.6 kg/m2)
   6) Surfacing: Fiberglass Mat with Non-Asphaltic Coating
   7) Flexural Strength, Parallel (ASTM C473): ≥ 200 .lbf (888 N)
   8) Flute Span (ASTM E661): 18 in. (457 mm)
   9) Permeance (ASTM E96): >17 Perms. (>970 ng/Pa•S•m2)
   10) R-Value (ASTM C518): 0.67.
   11) Water Absorption (ASTM C473): Less than 5 percent of weight.
   12) Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
   13) Compressive Strength (Applicable Sections of ASTM C472): Nominal 1800 psi (12410 kPa)
   14) Flame Spread/ Smoke Development (ASTM E84, UL 723, CAN/ULC-S102): Not more than 0 Flame Spread, 0 Smoke Development
   15) Combustibility (ASTM E136): Noncombustible
   16) Fire resistance rating (ASTM E108 and UL 790): Class A
   17) “Type X” requirements of ASTM C1177: Yes
   18) Mold Resistance (ASTM D3273): Scored a 10

PART 3 EXECUTION

3.1 EXAMINATION

A. Ensure that the project conditions and substrates are acceptable, to the installer, prior to beginning installation of work.

3.2 GENERAL INSTALLTION

A. Apply only as many roof boards as can be covered by a roof membrane system in the same day.
B. Board edges and ends shall be butted tightly together; do not gap edges or ends.

Specifier Note: Below are commonly used roof assembly installation methods. If desired choose the installation type from methods below:

3.2.1 INSTALLATION METHOD

A. Adhesive Installation under Single-Ply Roofing Systems:
   1) Stagger roof board end and edge joints minimum 12" over installed insulation layers.
   2) Stagger roof board end and edge joints minimum 6".
   3) Adhere roof boards over installed insulation using adhesive as recommended by roofing system manufacturer's product data.
   4) Apply overall pressure to ensure full adhesion.
   5) Do not slide into place.

B. Hot-Mopped Installation under Modified Bitumen Roofing Systems
   1) Stagger roof board end and edge joints minimum 12" over installed insulation layers.
   2) Roof board end and edge joints shall be staggered minimum 6".
   3) Prior to hot-mopping the roof boards to the substrates, ensure that the roof boards are dry, with free moisture content less than 1% by weight using a prob moisture meter that has been set to the gypsum scale.
   4) Maximum asphalt application temperatures shall be 425°F (218°C) to 450°F (232°C). Application temperatures above these recommended temperatures may adversely affect roof system performance. Consult and follow roofing system manufacturer's specifications for full mopping applications and temperature requirements.
   5) Follow accepted roofing industry guidelines for full mopping applications such as Equiviscous Temperature (EVT) guidelines, brooming and proper application rates of asphalt.
   6) DensDeck® Prime Roof Boards may be flood mopped to a substrate followed by a flood mopped application of membrane using these guidelines:
      i. Roof boards and substrate shall be dry.
      ii. Asphalt used to install roof boards should be allowed to cool prior to mopping base sheet to top of DensDeck® Prime Roof Boards.
      iii. Allow base ply to cool before mopping additional plies or cap sheet to limit the amount of direct heat that is applied to boards.

Specifier Note: Below is for **fire barrier installation below thermal insulation** or for applications when **no thermal insulation is present.**

C. Installation Directly on Metal Decking:
   1) Install roof boards with long edges bearing on and parallel to top flutes, so the edges are supported.
   2) Board edges and ends should be butted tightly together
   3) Stagger roof board end and edge joints minimum 6".

4) Apply only as many Roof Boards as can be covered by a roof membrane system in the same day.

D. Adhesive installation:
1) Adhere roof boards to metal deck using adhesive as recommended by roofing system manufacturer's product data
2) Apply overall pressure to ensure full adhesion
3) Do not slide into place

E. Hot-Mopped Installation
1) Prior to hot-mopping the roof boards to the substrates, ensure that the roof boards are dry, with free moisture content less than 1% by weight using a moisture meter that has been set to the gypsum scale.
2) Maximum asphalt application temperatures shall be 425°F (218°C) to 450°F (232°C). Application temperatures above these recommended temperatures may adversely affect roof system performance. Consult and follow roofing system manufacturer's specifications for full mopping applications and temperature requirements.
3) Follow accepted roofing industry guidelines for full mopping applications such as Equiviscous Temperature (EVT) guidelines, brooming and proper application rates of asphalt.
i. Roof boards and substrate shall be dry.
ii. Asphalt shall be allowed to cool prior to mopping base sheet to top of DensDeck® Prime Roof Boards
iii. Allow base ply to cool before mopping additional plies or cap sheet to limit the amount of direct heat that is applied to boards

F. Concrete and Lightweight Concrete Roof Decks; *new roofing or re-roofing:*
1) When roofing systems are installed on new poured concrete or light weight concrete decks or when re-roofing over an existing concrete deck, install a vapor retarder above the concrete to limit the migration of water from the concrete into the roof assembly.
2) Consult the roofing system manufacturer or design authority for specific instructions for applying other products to roof boards.

G. Following roofing system installation, avoid leaks and properly manage water accumulation.
1) Eliminate moisture vapor movement by convection and control the flow of water by gravity through imperfections in the roof system.
2) After a leak has occurred, do not allow condensation on the upper surface of the roof membrane, and all moisture accumulations as a result of the leak shall be removed, leaving dry substrates and materials.

3.1 FIELD QUALITY CONTROL

A. Do not cover Roof Boards until required inspections have been completed and installation has been accepted..

3.2 PROTECTION

A. Protect roof board installations from damage and deterioration during construction.

END OF SECTION