Georgia-Pacific

DensDeck®

Prime Roof Board with EONIC™ TECHNOLOGY

Technical Service Hotline 1.800.225.6119 or
www.densdeck.com

Manufacturer

Georgia-Pacific Gypsum
133 Peachtree Street
Atlanta, GA 30303

Georgia-Pacific Canada
2180 Meadowvale Boulevard, Suite 200
Mississauga, ON L5N 5S3

Technical Service Hotline: 1-800-225-6119

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, as well as hot mopped, cold mastic and torch-applied modified bitumen roofs. 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 1/2″ and 5/8″ 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 spray foam roofing systems. 1/2″ (12.7 mm) and 5/8″ (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 vapor retarders.

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

Recommendations and 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 utilizing 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.

* 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 1/2″ and 5/8″ products only.)

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 425°F (218°C) to 450°F (232°C). Application temperatures above these recommended temperatures may adversely affect roof system performance. Consult and follow the roofing system manufacturer's specifications 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 and Use–CAUTION

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

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 vapor 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 vapor 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 fiberglass 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 roofing 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.

Submittal Approvals

Job Name _____

Contractor _____

Date _____

continued→

Stamps / Signatures

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 noncombustible 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 noncombustible 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. 1/4″ (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®.

Type X. 5/8″ (15.9 mm) DensDeck® Prime Fireguard® Roof Boards are manufactured to meet the "Type X" requirements of ASTM C1177 for increased fire resistance beyond regular gypsum board.

UL Fire Resistance Ratings. 5/8″ (15.9 mm) DensDeck Prime Fireguard Roof Boards are designated as **Type DD** by UL and included in assembly designs investigated by UL for hourly fire resistance ratings. 5/8″ (15.9 mm) DensDeck Prime Fireguard Roof Boards may also replace any unclassified 5/8″ (15.9 mm) gypsum board in an assembly in the UL Fire Resistance Directory under the prefix "P".

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 Boards 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.

Physical Properties

Properties	1/4″ (6.4 mm)	1/2″ (12.7mm)	5/8″ (15.9 mm)
Thickness, nominal	1/4″ (6.4 mm) ± 1/16″ (1.6 mm)	1/2″ (12.7 mm) ± 1/32″ (.8 mm)	5/8″ (15.9 mm) ± 1/32″ (.8 mm)
Width, standard	4′ (1219 mm) ± 1/8″ (3 mm)	4′ (1219 mm) ± 1/8″ (3 mm)	4′ (1219 mm) ± 1/8″ (3 mm)
Length, standard	4′ (1219 mm) and 8′ (2438 mm) ± 1/4″ (6.4 mm)	4′ (1219 mm) and 8′ (2438 mm) ± 1/4″ (6.4 mm)	4′ (1219 mm) and 8′ (2438 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″ (66.7 mm)	5″ (127 mm)	8″ (203 mm)
Permeance[3], Perms (ng/Pa•S•m^2)	>30 (>1710)	>23 (>1300)	>17 (>970)
R Value[4], ft^2•°F•hr/BTU (m^2•K/W)	.28	.56	.67
Linear Variation with Change in Temp., 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 E84)	0/0	0/0	0/0
Bending Radius	4′ (1219 mm)	6′ (1829 mm)	8′ (2438 mm)

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.

Georgia-Pacific Gypsum

U.S.A. Georgia-Pacific Gypsum LLC
Georgia-Pacific Gypsum II LLC
Canada Georgia-Pacific Canada LP

SALES INFORMATION AND ORDER PLACEMENT

U.S.A. West: **1-800-824-7503**
Midwest: **1-800-876-4746**
South Central: **1-800-231-6060**
Southeast: **1-800-327-2344**
Northeast: **1-800-947-4497**

CANADA Canada Toll Free: **1-800-387-6823**
Quebec Toll Free: **1-800-361-0486**

TECHNICAL INFORMATION

U.S.A. and Canada: **1-800-225-6119,** www.gpgypsum.com

SECTION 07 22 20

ROOF BOARDS

PART 1 GENERAL

1.01 SUMMARY

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

1.02 REFERENCES

A. ASTM International (ASTM):
   1. ASTM C209 Standard Test Method for Cellulosic 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 C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
   5. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
   6. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
   7. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
   8. ASTM E108 Standard Test Methods for Fire Tests of Roof Coverings
   9. ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 C.
   10. ASTM E661 Standard Test Method for Performance of Wood and Wood-Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads.

B. Underwriters Laboratories (UL): UL 790 Standard Test Methods for Fire Tests of Roof Coverings.

C. [Florida Approvals: Roof boards shall have Florida Product Approval and Miami-Dade County Product Control Approval.]

1.03 SUBMITTALS

A. Product Data and Installation Instructions: Submit manufacturer’s product data including installation instructions and substrate preparation recommendations

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

1.04 QUALITY ASSURANCE

A. Inspection: Where applicable, allow for Owner's inspection and moisture testing and reporting prior to installation of roof boards.

B. [Install roof board in mock-up as specified in [Section 01 4339 Mock-Ups.] [Section _____].]

1.05 DELIVERY, STORAGE, AND HANDLING

A. All components used in roofing systems, including DensDeck® Prime Roof Boards, shall be protected from exposure to moisture before, during and after installation.

B. 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

C. Any protective, plastic factory packaging that is used to wrap roof boards for shipment is intended to provide temporary protection from moisture exposure during transit only and is not intended to provide protection during storage after delivery.

D. Roof boards stored outside shall be stored level and off the ground and protected by a waterproof covering. Provide means for air circulation around and under stored bundles of DensDeck® Prime Roof Boards. Use adequate supports to keep the bundles flat, level and dry.

E. Care should also be taken during installation to avoid the accumulation of moisture in the system. Roof boards shall be covered the same day as installed. Avoid application of 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.

1.06 FIELD CONDITIONS

A. Application standards where applicable are in accordance with design assembly specifics, system manufacturer requirements and the DensDeck® Technical Guide.

B. Do not install DensDeck® Prime Roof Board that is moisture damaged. Indications that panels are moisture damaged include, but not limited to, discoloration, sagging, or irregular shape.

C. Installed DensDeck® Prime Roof Boards shall be dry, with free moisture content of less than 1% using a moisture meter that has been set to the gypsum scale, before applying adhesive, asphalt or membrane.

D. All components used in roofing systems, including DensDeck® Roof Boards, shall be protected from exposure to moisture before, during and after installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS:

A. Georgia-Pacific Gypsum LLC products as specified herein.

2.02 COATED PRIME FIBERGLASS-MAT FACED GYPSUM ROOF BOARDS:

Specifier Note: Below is ¼" board, 2-5/8" flute span.

A. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Prime with EONIC™ Technology Roof Boards.
   2. Thickness: 1/4 inch.
   3. Width: 4 feet.
   4. Length: [4 feet] [8 feet].
   5. Weight:1.2 lb/sq. ft.
   6. Surfacing: Primed Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 40 lbf, minimum.
   8. Flute Span (ASTM E661): 2-5/8 inches.
   9. Permeance (ASTM E96): Greater than 30 perms.
   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 pounds per square inch.
   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

Specifier Note: Below is ½" board, 5" flute span.

B. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Prime with EONIC™ Technology Roof Boards.
   2. Thickness: 1/2 inch.
   3. Width: 4 feet.
   4. Length: [4 feet] [8 feet].
   5. Weight: 2.0 lb/sq. ft.
   6. Surfacing: Primed Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 80 lbf, minimum.
   8. Flute Span (ASTM E661): 5 inches.
   9. Permeance (ASTM E96): Greater than 23 perms.

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 pounds per square inch.
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

Specifier Note: Below is 5/8" board, 8" flute span.

C. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Prime with EONIC™ Technology Roof Boards.
   2. Thickness: 5/8 inch.
   3. Width: 4 feet.
   4. Length: [4 feet] [8 feet].
   5. Weight: 2.5 lb/sq. ft.
   6. Surfacing: Primed Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 100 lbf, minimum.
   8. Flute Span (ASTM E661): 8 inches.
   9. Permeance (ASTM E96): Greater than 17 perms.
   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 pounds per square inch.
   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

2.03 FIBERGLASS-MAT FACED GYPSUM ROOF BOARDS:

Specifier Note: Below is ¼" board, 2-5/8" flute span.

A. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Roof Boards.
   2. Thickness: 1/4 inch.
   3. Width: 4 feet.
   4. Length: [8 feet].
   5. Weight:1.2 lb/sq. ft.
   6. Surfacing: Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 40 lbf, minimum.
   8. Flute Span (ASTM E661): 2-5/8 inches.
   9. Permeance (ASTM E96): Greater than 50 perms.

10. R-Value (ASTM C518): 0.28.
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 pounds per square inch.
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

Specifier Note: Below is ½" board, 5" flute span.

B. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Roof Boards.
   2. Thickness: 1/2 inch.
   3. Width: 4 feet.
   4. Length: [8 feet].
   5. Weight: 2.0 lb/sq. ft.
   6. Surfacing: Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 80 lbf, minimum.
   8. Flute Span (ASTM E661): 5 inches.
   9. Permeance (ASTM E96): Greater than 35 perms.
   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 pounds per square inch.
   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

Specifier Note: Below is 5/8" board, 8" flute span.

C. Fiberglass Mat Faced Gypsum Roof Board:
   1. Acceptable Product: GP Gypsum, DensDeck® Roof Boards.
   2. Thickness: 5/8 inch.
   3. Width: 4 feet.
   4. Length: [8 feet].
   5. Weight: 2.5 lb/sq. ft.
   6. Surfacing: Fiberglass Mat.
   7. Flexural Strength, Parallel (ASTM C473): 100 lbf, minimum.
   8. Flute Span (ASTM E661): 8 inches.
   9. Permeance (ASTM E96): Greater than 32 perms.
   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 pounds per square inch.
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

2.04 VERY SEVERE HAIL (VSH) PRIME FIBERGLASS-MAT GYPSUM ROOF BOARDS

Specifier Note: Below is 5/8" board, 8" flute span.

A. Fiberglass Mat Faced Gypsum Roof Board:
1. Acceptable Product: GP Gypsum, DensDeck® StormX™ Prime with EONIC™ Technology Roof Boards.
2. FM Very Severe Hail (VSH) Requirements
2. Thickness: 5/8 inch.
3. Width: 4 feet.
4. Length: [4 feet] [8 feet].
5. Weight: 3.0 lb/sq. ft.
6. Surfacing: Primed Fiberglass Mat.
7. Flexural Strength, Parallel (ASTM C473): 100 lbf, minimum.
8. Flute Span (ASTM E661): 8 inches.
9. Permeance (ASTM E96): Greater than 30 perms.
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 C473): Nominal 900 pounds per square inch.
14. Combustibility (ASTM E136): Noncombustible
15. Fire resistance rating (UL 790 and ASTM E108): Class A
16. Mold Resistance (ASTM D3273): Scored a 10

PART 3 EXECUTION

3.01 INSTALLATION

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: Select installation type from installation types below:

C. Adhesive Installation over Thermal Insulation, 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. Do not slide into place.

D. Hot-Mopped Installation over Thermal Insulation, under Modified Bitumen 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. 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.
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 EVT temperature 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:
   a. Roof boards and substrate shall be dry.
   b. Asphalt used to install roof boards should be allowed to cool prior to mopping base sheet to top of DensDeck® Prime Roof Boards.
   c. 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 with no thermal insulation.

E. Installation Directly on Metal Decking:
1. Install roof boards with long edges bearing on and parallel to top flutes, so that edges are supported.
2. Stagger roof board end and edge joints minimum 6".
3 Please fasten DensDeck® Prime Roof Board in accordance to system Manufacturer's recommendations.
4. [Adhesive installation: Adhere roof boards to metal deck using adhesive as recommended by roofing system manufacturer's product data. Apply overall pressure to ensure full adhesion. Do not slide into place.]
5. [Hot-mopped installation:
   a. 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.
   b. 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.

c. Follow accepted roofing industry guidelines for full mopping applications such as EVT temperature guidelines, brooming and proper application rates of asphalt.

d. DensDeck® Prime Roof Boards may be flood mopped to a substrate followed by a flood mopped application of membrane using these guidelines:

1) Roof boards and substrate shall be dry.

2) Asphalt shall be allowed to cool prior to mopping base sheet to top of DensDeck® Prime Roof Boards.

3) Allow base ply to cool before mopping additional plies or cap sheet to limit the amount of direct heat that is applied to boards.]

6. [Mechanically fastened to a metal deck: Please fasten DensDeck® Prime Roof Board in accordance to system manufacturer's recommendations.

F. Concrete and Lightweight Concrete Roof Decks; new roofing and re-roofing: 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 barrier above the concrete to limit the migration of water from the concrete into the roof assembly. 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.

3.02 PROTECTION

A. Protect roof board installations from damage and deterioration until the date of Substantial Completion.

END OF SECTION 07 22 20