

Technical Data Sheet

DiamondDeck™

High-Performance Synthetic Roofing Underlayment



PRODUCT INFORMATION

DiamondDeck™ is a synthetic polymer-based scrim-reinforced underlayment designed for use on roof decks as a water-resistant layer beneath asphalt roofing shingles, wood shingles and shakes, metal shingles, concrete tile or slate. Follow finished roofing manufacturer's instructions and all local building code requirements. It has exceptional dimensional stability compared to standard asphalt felt underlayment when wet. It's stability eliminates the possibility of wrinkles caused by hygro-expansion. Standard asphalt felt can become so wrinkled when it picks up moisture that it can sometimes "telegraph" its wrinkles through to the shingles applied over it, creating visually objectionable wrinkles on the finished roof. DiamondDeck's extra-large 4-foot width and 250-foot length helps speed application. It has a special top surface treatment that provides excellent slip resistance, even when wet. **CAUTION:** Walking or crawling on any roof surface can be dangerous, especially when wet or snow/ice covered.

Product Data:

Roll Length (ft.):	250
Roll Width (ft.):	4
Roll Size (Gross sq. ft.):	1000
Roll Coverage (Typical net sq. ft.):	937.5
Shipping Weight (approx. lb/roll):	38

Limitations: Low-slope application minimum 2" per foot. Between slopes of 2" per foot up to 4" per foot apply two layers of DiamondDeck in "shingle-fashion" as described in the INSTALLATION instructions below. Do not install DiamondDeck as ice dam protection along eaves. Two layers of DiamondDeck cemented together is not an equivalent to WinterGuard. This product is not designed to be permanently exposed to sunlight or to the weather. Maximum exposure duration is six months (see fastening section below for more detail).

Product Composition: DiamondDeck roofing underlayment is based on a tough woven polyolefin reinforcement laminated between layers of specially formulated UV-stabilized polymer films.

Technical Data:

DiamondDeck is Classified by UL to be a suitable underlayment for use in any UL Class A, B, or C fire rated shingle system. Typical properties of DiamondDeck are shown in Table 1 below. DiamondDeck is manufactured to comply with performance requirements of ASTM D226 and ASTM D4869, including resistance to "liquid water transmission."

Water Vapor Transmission – ASTM E96 Method A ("dry method") < 0.2 Perms
Method B ("wet method") < 0.4 Perms

Applicable Standards:

ASTM D226 and D4869 (Physical properties only)
Classified for use beneath UL 790 Class A/ASTM E108 Class A fire rated asphalt shingles
ICC-ES Evaluation Report (AC 48, AC 188) pending
CAN/CSA Standard A220
Florida Product Approval # FL 11288
Miami-Dade Product Control Approved

INSTALLATION

Storage: Store DiamondDeck rolls horizontally on the pallet or standing on end after opened. in a dry, protected area at a temperature less than 120°F.

Deck Preparation: Provide a clean, dry and smooth deck surface by eliminating dust, dirt, loose nails and other objects. Before application to existing roofs, remove all roofing materials, then clean the roof deck until it is free of any dirt, dust, nails, and other materials.

Standard-Slope Application (4:12 and Greater): Starting at the lower edge of the roof, cover the entire deck by applying a single layer of DiamondDeck parallel to the eaves, with printed side facing up. When necessary, overlap all ends (vertical laps) at least 6" and "weather-lap" all sides (horizontal laps) at least 3". Offset end laps from course to course at least 3 feet. Apply flat and unwrinkled, carefully fastening as described below to hold in place.

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Low Slope Application (2:12 up to 4:12): Starting at the lower edge of the roof, cover the entire deck by applying DiamondDeck parallel to the eaves, with printed side facing up and increased overlap dimensions. Begin by applying a 24" wide starter strip of DiamondDeck along the eaves. Then place a full width sheet over the starter, with lower edge flush to the starter's lower edge. Apply succeeding 48" wide courses of DiamondDeck up the roof slope, overlapping each previous course a minimum of 20" in "shingle-fashion." Overlap all vertical side/end joints at least 12" and offset these joints from course to course at least 36". Apply flat and unwrinkled, carefully fastening as described below to hold in place.

Fastening: DO NOT USE STAPLES!

Short-term exposure (< two days): When the finished roofing will be installed within two days of underlayment application and high winds are not forecast, standard roofing nails with 3/8" diameter heads may be used. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface. Proper fastener spacing is 15" On-Center (O.C.) vertically and 12" O.C. horizontally (parallel to eaves). On vertical side/end laps install 8 fasteners equally spaced at 6" O.C. centered in the lap to hold the underlayment in place. If wind or rain is expected prior to finished roofing application, it is recommended that 1" diameter plastic or steel cap nails be used in place of standard roofing nails, as described below.

Long-term exposure (max. six months): When anticipated exposure time may exceed two days, CertainTeed strongly recommends using low-profile plastic or steel cap nails with 1" diameter heads to fasten DiamondDeck in place. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface.

Lap Sealing: Where laps or joints require sealant or adhesive, use a high quality asphalt roofing cement meeting ASTM D4586 Type II or cements/caulks based on butyl rubber or urethane. It is particularly important to seal all lap seams in areas where the underlayment will be exposed to wind-driven rain.

Eaves Flashing for Ice Dam Protection (all slopes): Do not install DiamondDeck™ as ice dam protection along eaves. Eaves flashing may be constructed from self-adhering waterproofing underlayment (such as CertainTeed's "WinterGuard™ Waterproofing Shingle Underlayment," or its equivalent). Two layers of DiamondDeck cemented together is not an equivalent to WinterGuard. Eaves flashing for ice dam protection should be installed to a level of at least 24" inside the interior wall line, or in areas of severe icing, at least up to the highest water level expected to occur from ice dams.

MAINTENANCE

DiamondDeck requires no maintenance when installed according to manufacturer's application instructions.

WARRANTY

DiamondDeck is warranted against manufacturing defects for the length of the warranty term. In the event that DiamondDeck is installed underneath shingles manufactured by CertainTeed, CertainTeed warrants the performance of DiamondDeck for the same number of warranty years as the installed CertainTeed shingles. In the event that roofing shingles not manufactured by CertainTeed are installed over DiamondDeck, this Limited Warranty extends for 30 years from the date of DiamondDeck installation. For specific warranty details and limitations, refer to the DiamondDeck Limited Warranty

FOR MORE INFORMATION

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