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 and panels, 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: Between slopes of 2" per foot up to 4" per foot please reference Low Slope Application 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. Tested to a maximum UV resistance exposure duration of 180 days (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 physical property 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 (Physical properties only)
Classified for use beneath UL 790 Class A/ASTM E108 Class A fire rated asphalt shingles
ICC-ES AC 188
ICC-ES ESR-3344 (Evaluation Report)
Florida Building Code Approved
Miami-Dade Product Control Approved
Texas Department of Insurance (TDI) Approved Synthetic Underlayment

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.

Low Slope Application (2:12 to <4:1) The use of CertainTeed WinterGuard® Waterproofing Shingle Underlayment, or its equivalent,* applied over the entire deck surface is required.
* For low slopes, underlayment equivalents to WinterGuard include: 1) waterproofing shingle underlayments meeting ASTM D1970; 2) in areas not prone to snow or ice, two layers of CertainTeed DiamondDeck® in shingle fashion (half lap) per the low-slope application instructions below:

Low slope application instructions for DiamondDeck double coverage in shingle-fashion:

- Install a full 25.5" starter strip along the eaves
- Install a full 48” wide sheet over the starter strip
- Apply each succeeding 48” wide courses up the roof overlapping each previous course a
- maximum of 22.5" exposure (or 25.5” overlap) in traditional “half-lap” installation or in “shingle fashion”.
- Overlap 12" at all end lap seams and offset from adjacent end laps by 3' minimum.

Exposure Limitations: DiamondDeck is not designed to be permanently exposed to sunlight and weather or used as a waterproofing underlayment. DiamondDeck is tested for UV resistance for up to 180 days, do not expose it for more than 6 months prior to installing finished roofing.

Fastening: DO NOT USE STAPLES! Plastic 1” head cap nails are strongly recommended. Roofing nails with standard 3/8” heads are permitted for immediate cover-up. Approved fasteners can be either pneumatically driven or hand applied. Correct nailing locations are clearly indicated by the diamond shaped targets printed on the top 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.

Lap Sealing (required for up to 2 day dry-in): 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). 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

Sales Support Group: 800-233-8990
Web site: www.certainteed.com

CertainTeed Roofing
20 Moores road
Malvern, PA 19355

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