



DEFENDER

VB Synthetics™ Roof Underlayment

Defender is the go to product when project managers are looking to save time and money

VB Synthetics Roof Underlayment™ - Defender is a four-layer, non-warping, non-cracking roof underlayment manufactured to meet the most challenging applications. Designed with steep-slop applications in mind, VB Synthetics Roof Underlayment's unique two surface anti-slip coating provides unparalleled traction. Engineered to always lay flat right off the roll and install wrinkle free with the fastening pattern printed right on the material, it is easy to install using either caped roofing nails or caped staples. VB Synthetics Roof Underlayment - Defender is produced from 100% inorganic materials reducing the risk of biological growth and may be exposed to direct sunlight for up to 180- days, giving the installer flexibility when managing large projects. These properties coupled with its light weight and superior strength make VB Synthetics Roof Underlayment - Defender the go to product when project managers are looking to save time and money.

Approved Applications

- Asphalt Shingles
- **Standing Seam Metal Roof**
- Synthetic Roofing Tile
- **Organic Natural Roofing Shingles**
- Cement Roofing Tile
- **Clay Roofing Tile**
- Natural Slate

Benefits

- 180-day UV Exposure
- **Lay Flat - Wrinkle Free Technology**
- Unparalleled Strength
- **Unique Two Surface Anti-Slip Technology**
- Installation with either Capped Roofing Nails or Capped Staples
- **Made from 100% Inorganic Material to eliminate Biological Growth**



Technical Specifications

Dimensions

Width	4ft	N/A
Length	250ft	N/A
Area Per Roll	1,000 sq ft	N/A
Total Fabric Weight (GSM)	100	+/-5
CD Grab Strength	90lbs	ASTM D751
MD Grab Strength	100lbs	ASTM D751
Elongation	19-18	ASTM D751
Sandwich Coating (GSM)	16	ASTM D751
Anti-Slip Coating (GSM)	17	ASTM D751
Scrim (Weave Count)	9x7	N/A
Coefficient Of Friction	0.3	ASTM D1894

Compliance

- ASTM D266 TYPE II
- ICC-ES AC207
- CSA A123.3
- TDI APPROVED
- Florida Building Code - FL20155
- ASTM E108 CLASS A
- UL 790 CLASS A
- Miami Dade Approved

Packaging

- 6.5 mil
- 21lb Roll Weight
- 56 Rolls Per Pallet
- 1,288 Weight Per Pallet



Installation Guide

**VB Synthetics™ Roof
Underlayment Defender**



VB Synthetics Defender™ Roof Underlayment

VB Synthetics Roof Underlayment™ is a synthetic four-layer skid resistant roll product designed with the modern roof in mind. Engineered to install wrinkle free, it comes with a preprinted pattern to help ensure proper fastening and overlapping. See Defender data sheet for VB Synthetics Roof Underlayment for product specifications.

General Guidance

- This document is intended for guidance only. It does not cover local code requirements. Before beginning any project, it is highly recommended that all local code requirements are reviewed and understood.
- **Always use proper safety equipment and follow all OSHA job site regulations including Section V: Chapter 4 covering Fall Protection in Construction.**
- Read Installation Guidelines for VB Synthetics Roof Underlayment from beginning to end and ensure it is understood.
- **Prior to installation verify that the underlayment conforms to the requirement of the manufacture of the roofing material.**
- In high wind zones overlaps and fastening pattern should conform with local building codes.
- **Care must be taken when installing non-asphaltic based roofing materials such as metal, slate, or tile. It is well known that these materials have sharp edges and may damage the roof underlayment during installation.**
- Repair or replace any roof underlayment damaged during the installation of roofing material immediately.
- **Do not proceed with roof installation until damage to the underlayment is rectified.**

Tools

- Work Glove
 - Scissors
 - Tape Measure
 - Eye Protection
 - Utility Knife
 - Require Safety Equipment
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Fasteners

- Capped roofing nails or capped staples may be used to install VB Synthetics Roof Underlayment.
- **Cap MUST be a minimum of 1 in (25 mm) in diameter.**
- Cap may be constructed of steel, tin, plastic or similar material.
- **When installing care must be taken to ensure every nail or staple is properly driven into the roof deck so that the caps have positive pressure against the underlayment.**
- The use of uncapped staples and uncapped roofing nails are NOT recommended.

Surface Preparation

- Ensure roof deck is structurally sound, free of rot/moisture, and conforms to local building code.
- **Ensure all roof deck fasteners are properly installed and flush with surface of the roof deck.**
- Ensure any protrusions that may puncture, or damage VB Synthetics Roof Underlayment are removed.
- **Remove all dust, dirt and loose material from roof deck.**



Installation

Determine the slope of the roof. Once slope is determined, use overlap guidance outlined below:

Roof slope of 2:12 to 4:12 or less

Horizontal Joints:

minimum overlap of 6 in (15.2 cm)

Vertical Joint:

minimum overlap of 6 in (15.2 cm)

Roof slope of 4:12 or greater

Horizontal Joints:

minimum overlap of 4 in (10.2 cm)

Vertical Joints:

minimum overlap of 6 in (15.2 cm)

- Install drip edge along eve edge of the roof.
- **Install ice and water defender as required by local building code or as recommended by roof material manufacture.**
- Begin by installing VB Synthetics Roof Underlayment in all the roof valleys.
 - Secure every 12 in (30.5 cm) along the edge.
 - Care must be taken to ensure material lays flat, is pulled tight, wrinkle free, but not stretched.
- **Starting at the eve edge of the roof, unroll VB Synthetics Roof Underlayment, securing the underlayment as required by local building code, typically every 12 in (30.5 cm), along the top edge, rake edge, along any vertical seam and at every valley intersection**
- Care must be taken to ensure material lays flat, is pulled tight, wrinkle free, but not stretched.
- **Continuing installing underlayment working up the roof following, again securing at the top edge, rake edge, along any vertical seam and at every valley intersection per local building code.**
- When the ridge line is reached, and over any hip line area, ensure a minimum of a 6 in (15.2 cm) overlap exists.
- **After completing installation of VB Synthetics Roof Underlayment, Install rake edge drip edge.**
- For technical support contact your local representative.

Warranty-Defender

VB Synthetics Roof Underlayment™ (“VB Synthetics”) warrants its VB Synthetics™ Roof Underlayment products against defects in material and workmanship for a period of:

VB Synthetics Roof Underlayment – Defender:
for a period of thirty (50) years from the date of installation

Upon receipt of written notice, which must be given no later than forty-five (45) days after discovery of the defect, VB Synthetics, at its sole option, will repair or replace the defective item(s) or refund the purchase price. VB Synthetics’s liability, if any, for damages based on any claim of any kind whatsoever, and regardless of the legal theory, with regard to any of its products shall be limited to the actual purchase price of the product(s) with respect to which such claim is made. The warranty provided above is extended solely to the person or entity that purchases the product directly from VB Synthetics or its authorized distributor, and no third party may rely thereon or assert any claim based on such warranty.

VB Synthetics, at its sole option, may request that the defective item(s) be returned to VB Synthetics’s principal offices for investigation and inspection. All costs for returning purported defective item are the sole responsibility of the person or entity making the claim. VB Synthetics is not required to repair or replace the defective item(s) or to refund the purchase price until it has received such item(s) that VB Synthetics has requested returned and has inspected such item(s).

The foregoing warranty is the only warranty provided by VB Synthetics and is to the exclusion of any other warranty, whether express or implied, including the implied warranties of merchantability and fitness for a particular purpose, all of which are expressly disclaimed.

Under no circumstance shall VB Synthetics be liable to purchaser for compensation, reimbursement or damages on account of the loss of present or prospective profits or revenue, expenditures, investments or commitments, and in no event shall VB Synthetics be liable to purchaser or any other person or entity for special, incidental, indirect, consequential or exemplary damages.

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VB Synthetics shall not be liable for product failure resulting from any of the following:

- (i) products not installed in accordance with VB Synthetics’s installation instructions
- (ii) non-compliance with applicable building codes and regulations
- (iii) the use of any of its products:
 - a. in a manner for which it was not intended
 - b. in a modified form without the permission of VB Synthetics
 - c. in combination with any other system, equipment or device not manufactured or sold by VB Synthetics

VB Synthetics may change, modify, amend, replace or discontinue offering a product warranty, limited or otherwise. Any such change, modification, amendment, replacement or discontinuance shall be applicable to unsold products only, and VB Synthetics shall endeavor to give purchaser at least forty-five (45) days prior written notice of same.

Claims or inquiries shall be addressed as follows: Warranty Department VB Synthetics Roof underlayment, for more information please email info@vbsynthetics.com