



DEFENDER[®]

ASTM D4869, ASTM D226

High Strength Synthetic Roofing Underlayment

Defender[®] is an all-synthetic roofing underlayment designed to offer excellent traction on steep roofs, with heavy duty long lasting protection against the elements. With very low stretch and wrinkling, DEFENDER[®] is easy to install and stays where you put it!

FEATURES

- Non-woven walk surface gives excellent traction, even when wet.
- High strength synthetic materials resist wrinkling and stretching.
- Enhanced UV blockers provide a 180 day exposure rating.
- Meets or exceeds ASTM D226 and D4869

PRODUCT SPECIFICATIONS

Color	Light Grey	
Surface	High Traction Synthetic Polypropylene	
Roll Size	48" by 250'	40 lbs.
Coverage	1,000 sq. feet	
Thickness	25 Mils	

INSTALLATION GUIDELINES:

DEFENDER[®] Synthetic Underlayment is designed to be used as an underlayment for composition shingles, wood shingles, metal roofing, concrete tiles, and slate. It must be installed over a clean, acceptable substrate free of voids, debris, and any sharp protrusions.

5/12 and steeper installation:

Begin installation at the lowest edge of the roof, printed side up, parallel to the eave. Install the second course with a minimum 4" overlap over the first course, and a minimum 12" overlap on side laps. Offset all sidelaps a minimum of 6'. Fasten using cap nails per the nailing marks on DEFENDER[®]. Fasten through all large dots in winds under 10 mph. Use ALL dots in winds 10 mph and over.

2/12 to 5/12 installation:

Begin with a half-height strip (24") of DEFENDER at the eave. Then install a full size course, printed side up, completely covering the initial strip. All following courses shall be installed over the previous course with a 26" overlap, creating a two-layer covering. Again, fasten using cap nails through large dots in winds under 10 mph, and use all dots in winds 10 mph and over.

All installations must comply with local and international building codes. All installations must be with plastic or metal cap nails designed specifically for roofing installations, driven flush to surface of underlayment. Cap nails must not penetrate through the material. Fasteners must conform to markings indicated on the underlayment.

PERFORMANCE RATINGS

Temperature Range	40°F to 240°F	
Moisture Vapor Permeability	ASTM E96	.4 perms
Resistance to Water Transmission	ASTM 4869	Pass
Tear Strength	ASTM D1922	22 lbf
Breaking Strength	ASTM D146	>103 lbf/in.
Thickness	ASTM 1977	25 mils.
Dimensional Stability	ASTM 1087	Pass
Unrolling @ 32°F & 140°F	ASTM D226	Pass
Cold Flexibility -25 Deg°F	ASTM D5147	Pass
Pliability	ASTM D146	Pass

Test data is based on average results and are not limiting specifications. Normal manufacturing variation may produce results 10% above or below typical data and should not be considered or interpreted as minimum or maximum values.

