TopShield®
Uncompromising Commitment to Quality

DEFENDER HT

EAVE PROTECTOR AND UNDERLAYMENT

TOPSHIELD® DEFENDER HT is a self-adhesive underlayment that can be exposed to temperatures as high as 257º F (125º C)and as low as -49º F (-45º C). It is used underneath sheet metal and asphalt shingle coverings on steep-slope roofs, with accompanying plywood or OSB substrates.

- **Excellent resistance to temperature variations**
- **Superior slip resistance**
- **Easy installation**

PRODUCT PURPOSE

Application	Waterproofing	
Building Part	Roofing	
Types of Slope	Outside Steep Slope	
Types of Covering	Slate Tiles	Sheet Metal
	Asphalt Shingles	
Substrates	Plywood	OSB

PRODUCT CHARACTERISTICS

Technology	SBS Modified Bitumen
Reinforcement	Glass Mat
Surface	Anti-slip polypropylene film
Underface	Split Release Film
Installation Method	Self-Adhesive
Recommended Use	Steep Slope
Operating Temperature	-49°F to 257°F (-45°C to 125°C)
Maximum exposure	180 days

PRODUCT INFORMATION

Code	Width		Length		Thickness		Selvedge Width	Coverage		Rolls/Pallet
	m	in	m	ft	mm	mils	in (mm)	m²	ft²	
TOP00623 (no box)	0.9	36	19.8	65	1.4	55	3.0 (75)	18.2	195	36

PHYSICAL PROPERTIES

PROPERTY / UNIT	MD	XMD	ASTM TEST METHOD
Maximum Load; lbf/in (kN/m)	77 (13.5)	46 (8.1)	D1970
Elongation at Break; %	65	42	D1970
Tear Resistance; lbf (N)	113 (502)	81 (360)	D1970
Thermal Stability; in (mm)	0 (0)		D1970
Adhesion to Plywood @ 40°F (4.4°C); lbf/ft (kgf/30.5 cm)	5.6 (2.5)		D1970
Adhesion to Plywood @ 75°F (24°C); lbf/ft (kgf/30.5 cm)	20.3 (9.2)		D1970
Low Temperature Flexibility; °F (°C)	Pass at -20 (-29)		D1970
Water Vapor Permeance; perm (ng/Pa•s•m2)	0.008 (0.46)		E96 (Method B)
Nail Sealability	Pass		D1970
Waterproof Integrity of Side Lap Seam	Pass		D1970
Static Puncture; lbf (N)	> 96.7 (> 430)		D5602

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INSTALLATION		
Surface Preparation	The substrate should be clean, stable, dry, free of any loose materials, grease, and other contaminants, which may compromise the product's performance.	
Minimum Installation Temperature	50°F (10°C)	
Required Products	ELASTOMERIC SEALER	
Complementary Products	EXTERIOR PRIMER	or H_2O PRIMER
Installation Prerequisite	The use of EXTERIOR PRIMER or H_2O PRIMER is not required on most surfaces when the membrane is covered within 24 hours of installation.	
Installation	1. If conditions require, prepare the substrate with EXTERIOR PRIMER or H2O PRIMER. 2. Position the membrane parallel to the roof edge while leaving about 3.2 in (8 cm) at the front where the gutter will be installed. 3. Fold back on itself, by half of its width, or 20 in (50 cm) over the whole length already positioned. It is recommended to kneel on the unfolded portion of the membrane to keep it in place during this operation. 4. Remove the split-release film from the folded section while placing the membrane on the support. The self-adhesive portion then adheres to the support. 5. Then take the other side of the membrane and repeat the previous two steps. 6. Immediately apply pressure on the membrane using a heavy metal roller or a hard rubber roller to ensure adhesion between the support and the membrane and avoid forming bulges, folds or gaps. Note: The transverse and longitudinal overlap should be 3 in (75 mm). Refer to the ROOF SYSTEM INSTALLATION for waterproofing membrane installation to roof details and upstands.	
Recommendations/Restrictions	It is not recommended to use a product containing bitumen directly on softwood boards or flexible polyvinyl chloride. Check that the membrane is not dusty, wet or frosted to maintain its slip resistance.	
Storage	Rolls should be stored upright, tape side up. If the products are stored outdoors, cover them with an opaque protective cover after removing the delivery packaging. Can withstand freezing but must be warmed to at least 50°F (10°C) before installation.	

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