

POWERply® Endure® 100 Smooth

Smooth Surfaced, High Tensile, Fiberglass Reinforced SBS Modified Bitumen Membrane



FEATURES

SBS elastomer enhanced with Reactive Enhanced Terpolymer (RET) and Thermoplastic Polyurethane (TPU)

Roof ID™ chip embedded into each roll

Antiwicking reinforcement

UL Classified

BENEFITS

Improves durability of the modified bitumen blend

Capability to identify the membrane and its QC data over the life of the roof system

Blister Resistance

Fire Protection



DESCRIPTION

POWERply Endure 100 Smooth is an asbestos free, smooth surfaced, modified bitumen membrane. It consists of specially selected bitumens, modified with SBS rubber along with RET and urethane high performance elastomers and reinforced with an antiwicking fiberglass mat and scrim fabric. This product exceeds the requirements of ASTM D 6163, Type III, Grade S and CSA A123.23, Type A, Grade 3. POWERply Endure 100 Smooth roof systems are fire rated by Underwriters Laboratories for an exterior fire hazard. Refer to UL Roofing Materials and Systems Directory for applicable system configurations.

BASIC USES

POWERply Endure 100 Smooth is designed for roof membrane and flashing applications in hot applied asphalt adhesives over multi-ply systems where a high strength, fiberglass reinforced, smooth surface membrane is desired. In addition, POWERply Endure 100 Smooth is suitable for application in cold process modified bitumen system and flashings.

PACKAGING

POWERply Endure 100 Smooth is a 2.3mm (90 mil) thick membrane. A roll covers 150 sq. ft. (13.9 m²) when applied, with roll dimensions of 3' x 56'8" (0.91m x 17.3m), and weighs approximately 94 lbs (42.6 kg).

POWERply Endure 100 Smooth is available in pallets only, with 20 rolls per pallet.

APPLICATION

According to job specifications, prepare the surface to be covered:

Replace areas of wet insulation, deteriorated deck and wood components.

Install roof insulation or nailed base sheet and multi-ply base ply system.

Plan the placement of POWERply Endure 100 Smooth to ensure that water flows over or along, but not against, the exposed edges. Starting at the low point of the roof, apply adhesive uniformly and continuously according to specifications. Embed the ply sheet(s) as specified. Avoid walking on plies during the placement.

For cold process applications, cut the POWERply Endure 100 Smooth in 16' to 18' (4.9 to 5.5 m) lengths, maximum. Allow lengths to relax for the following time length prior to installation:

Above 55° F (13° C): 30 minutes

Below 55° F (13° C): 60 minutes

For hot applications, the adhesive temperature must be at the EVT or 425° F (218° C) at the point of application, whichever is greater. THERMastic, THERMastic 80, and Premium IV Asphalt are recommended as hot applied adhesives of POWERply Endure 100 Smooth. Hot applied modified bitumen membranes require special application techniques under cool ambient temperatures and/or moderate wind conditions. Consult your local Tremco Roofing sales representative for specific recommendations.

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APPLICATION (CONTINUED)

Place the POWERply Endure 100 Smooth in a uniform and continuous application of adhesive. For cold process applications, press the membrane into the adhesive using a weighted roller 35-75 lbs. (16-34 kg.) to assure full contact of the back of the membrane into the adhesive.

COVERAGE RATES

Side laps 4" (102 mm) minimum; end laps 6" (152 mm) minimum. Hot air welding of laps is acceptable. Offset membrane laps from the base membrane laps. Stagger end laps at least 36" (914 mm). Install flashing as specified.

Hot melt interply application rate: 25 lbs/ 100ft² (1.24 kg/m²). Cold process interply application rate: 2 gal/SQ (0.8 L/m²)

LIMITATIONS

- Not intended to perform under ponding conditions. Positive drainage required.
- Not to be exposed to solvents, oils, or other contaminants harmful to asphaltic materials
- Backnail on roofs with slopes 2:12 (2" per foot) (16.6%) or greater
- Not intended for phased construction

PHYSICAL PROPERTIES

POWERply Endure 100 Smooth				
Properties		Type A, Grade 3	Tested Value	
Thickness – mm (mils)		2.0 (80)	2.1 (84)	
Selvedge thickness – mm (mils)		2.0 (80)	2.3 (90)	
Mass per unit area – kg/m ² (lbs/100 ft ²)		2.2 (45)	2.8 (57)	
Back surface coating thickness (only for heat-welded sheets), min. – mm (mils)		1.0 (40)	N/A	
			Before Heat Conditioning	After Heat Conditioning
Strain energy, min. – kN/m (lbf/in)	At 23 ± 2°C (73.4 ± 3.6°F)	See Tested Value	1.4 / 1.9 (8 / 11)	1.1 / 1.2 (6 / 7)
	At 0°F	See Tested Value	1.4 / 1.2 (8 / 7)	1.1 / 0.9 (6 / 5)
Peak load, min. – kN/m (lbf/in)	At 23 ± 2°C (73.4 ± 3.6°F)	5.3 (30)	33.8 / 27.0 (193 / 154)	35.6 / 34.5 (203 / 197)
	At 0°F	12.3 (70)	45.2 / 33.4 (258 / 191)	41.2 / 33.1 (235 / 189)
Elongation at peak load, %	At 23 ± 2°C (73.4 ± 3.6°F)	2%	7 / 8	5 / 6
	At 0°F	1%	5 / 6	4 / 4
Ultimate elongation at 23 ± 2°C, %		3%	19 / 29	6 / 5
Dimensional stability, max., %		0.5%	0 / 0	
Low temperature flexibility, max. – °C (°F)		-18 (-0.4)	-40 / -40C (-40/-40F)	-18/-18C (-0.4 / -0.4F)
Compound stability, min. – °C (°F)		91 (195)	150 / 150C (302 / 302F)	
Resistance to puncture		N/A	N/A	

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PRECAUTIONS

Your local Safety Sales Representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventive maintenance are all part of a sound roof program.

TECHNICAL SUPPORT

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

Your local Safety Sales Representative, working with the Safety Sales Representative, can help analyze conditions and needs to develop recommendations for special applications.



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