POWERply® Endure® 320 FR

A Fire Rated, Granule Surfaced, High Tensile Bilaminate Reinforced SBS Modified Bitumen Membrane

FEATURES	BENEFITS
SBS elastomer enhanced with Reactive Enhanced Terpolymer (RET) and Thermoplastic Polyurethane (TPU)	Improves durability of the modified bitumen blend
Factory applied surfacing protected with Granulock™	Increases granule retention to enhance longevity of the membrane
RooF ID™ chip embedded into each roll	Capability to identify the membrane and its QC data over the life of the roof system
Antiwicking reinforcement	Blister Resistance
UL Classified	Fire Protection

DESCRIPTION

POWERply Endure 320 FR is an asbestos free, granule surfaced, modified bitumen membrane with fire resistant characteristics. It consists of specially selected bitumens, modified with SBS rubber along with RET and urethane high performance elastomers and reinforced with an antiwicking polyester and fiberglass fabric. POWERply Endure 320 FR is furnished with a factory applied white granule surfacing and a clear UV cured surface treatment designed to improve granule retention. This product exceeds the requirements of ASTM D 6162, Type III, Grade G and CSA AI23.23. POWERply Endure 320 FR roof systems are fire rated by Underwriters Laboratories for an exterior fire hazards. Refer to UL Roofing Materials and Systems Directory for applicable system configurations.

BASIC USES

POWERply Endure 320 FR is designed for roof membrane and flashing applications in cold process adhesives in multi-ply systems where a high strength, bilaminate reinforced, granule surface membrane is desired.

PACKAGING

POWERply Endure 320 FR is a 3.7mm (146 mil) thick membrane. Roll covers 100 sq. ft. (9.29 m^2) when applied, with roll dimensions of 39-3/8" x 34'5" (1m x 10.5m), and weighs approximately 109 lbs (49.4 kg).

POWERply Endure 320 FR 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 320 FR 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 membranes as specified. Avoid walking on plies during the placement.

For cold process applications, cut the POWERply Endure 320 FR 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

Place the POWERply Endure 320 FR 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.

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. Install flashing as specified.

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LIMITATIONS

Special application procedures are required for application of POWERply Endure 320FR in hot applied bitumen. Contact Tremco Roofing Product Group for additional information.

- 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

PROPERTY	TYPICAL VALUE	TEST METHOD
Thickness	3.7 mm (146 mils.)	ASTM D 5147
Tensile Strength @ 0°F (-18°C)	650 lbf/in MD (113 kN/M) 600 lbf/in XMD (105 kN/M)	ASTM D 5147
Elongation @ 0°F (-18°C)	6% MD 6%XMD	ASTM D 5147
Tensile Strength @ 77°F (25°C)	550 lbf/in MD (96 kN/M) 500 lbf/in XMD (87.5 kN/M)	ASTM D 5147
Elongation @ 77°F (25°C)	10% MD 10% XMD	ASTM D 5147
Tear Strength @ 77°F (25°C)	850 lbf MD (3779 N) 800 lbf XMD (3556 N)	ASTM D 5147
Low Temp Flex	-40° F (-40° C)	ASTM D 5147
Dimensional Stability	pass	ASTM D 5147
Compound Stability @ 215°F (102°C)	pass at 302° F (150° C)	ASTM D 5147
Granule Loss	0.10g	ASTM D 5147

PRECAUTIONS

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

TECHNICAL SUPPORT

Your local Tremco Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in weatherproofing technology, complement and extend the service of the Tremco Service Staff.

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Tremco Roofing and Building Maintenance is part of Tremco Construction Products Group.

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