

StressPly® E Membranes

StressPly E • StressPly E FR Mineral



OVERVIEW & FEATURES

StressPly E (Environmental) membranes feature a unique combination of rubber-modified asphalt together with selected reinforcement layers. The result is a high-strength, puncture and fatigue resistant, rubber-modified membrane designed for use as the top component in a roofing system where fire retardancy is required. StressPly membranes are made up of Styrene-Butadiene-Styrene and Styrene-Isoprene-Styrene (SBS+SIS). These rubber-modified membranes utilize KEVLAR® fibers and a dual polyester and fiberglass combination reinforcement that offers the inherent strength and heat stability of fiberglass along with the ability of polyester to conform.

StressPly E membranes can also be used in conjunction with other HPR® products as well as with conventional glass base sheets or fiberglass roofing felts. In addition, StressPly E membranes can be used as the top ply in a two-ply flashing system. It can also be used to repair splits, cracks, and other deteriorated areas in existing asphalt-based roofing systems. Specifications are available for either hot or cold-applied systems. The StressPly E FR Mineral sheet can be upgraded with highly-reflective Sunburst™ minerals.

Environmentally Friendly - StressPly E membranes utilize post-consumer scrap from tires in the roofing compound. In addition, StressPly E utilizes recycled boiler slag as the surfacing in non-mineral membranes diverting materials away from landfills. StressPly E also incorporates soy-based products, reducing our reliance on petroleum-based technologies. With absolutely no sacrifice in quality, StressPly E membranes maintain Garland's reputation as a manufacturer of high-performance roofing systems while benefiting the environment.

Unmatched Rubber Technology - StressPly E membranes provide unmatched durability. The SBS rubber affords superior low temperature flexibility and long-term weathering characteristics. The SIS rubber dramatically increases the overall life expectancy of the modified membrane. When SBS and SIS are combined, the result is a superior high-performance roof membrane.

Superior Strength - The StressPly E membranes are reinforced with one layer of fiberglass and one layer of polyester. The superior strength provided by the KEVLAR® fibers and the dual fiberglass and polyester combination resists the movement created by today's modern buildings. In addition, StressPly E membranes provide tensile strength in excess of 500 pounds per inch in the machine and cross machine direction. This translates to long-term resistance to splits and tears in the completed StressPly E membrane roof system.

Superior Fire Resistance - StressPly E FR Mineral contains a fire retardant that is added to the compound during the manufacturing process. As a result, it will maintain its fire rating for the life of the membrane. StressPly E FR Mineral has a Class A fire rating over a combustible roof deck.

APPLICATION

Hot-Applied

StressPly E membranes can be used with ASTM D 312, Type III or IV asphalt, Garland's HPR All-Temp Asphalt or modified asphalt. One or two plies of ASTM D 2178, Type IV or VI fiberglass felt are solidly bonded to the approved substrate. The StressPly E membrane is then solidly bonded to these base layers with mopping asphalt.

Cold-Applied

StressPly E membranes can also be applied in Garland's cold-applied Weatherking® and Green-Lock® membrane adhesive. One or two layers of Garland approved base sheets are applied in Weatherking or Green-Lock membrane adhesive to the approved substrate. The StressPly E membrane is then adhered to these base layers with Weatherking or Green-Lock membrane adhesive.

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Technical Data	StressPly E	StressPly E FR Mineral
Tensile Strength	*MD 500 lbf./in. (87.5 kN/m) *XD 550 lbf./in. (96.25 kN/m) **MD 650 lbf./in. (114 kN/m) **XD 750 lbf./in. (132 kN/m)	*MD 500 lbf./in. (87.5 kN/m) *XD 550 lbf./in. (96.25 kN/m) **MD 650 lbf./in. (114 kN/m) **XD 750 lbf./in. (132 kN/m)
*Tear Strength	MD 900 lbf. (4003 N) XD 950 lbf. (4226 N)	MD 900 lbf. (4003 N) XD 950 lbf. (4226 N)
*Elongation	MD 6.0% XD 6.0%	MD 6.0% XD 6.0%
*Low Temperature Flex	-30°F (-34°C)	-40°F (-40°C)

Finished membrane meets and/or exceeds ASTM D 6162, TYPE III.

Test Method ASTM D 5147 is tested at:

* 2 in./min @ 73.4 ± 3.6°F ** 0.08 in/min @ 0 ± 3.6°F
(50 mm/min @ 23 ± 2°C) (2.0 mm/min @ -18 ± -3°C)

Roll Dimensions	StressPly E	StressPly E FR Mineral
Width	3 ft. 3 in. (1m)	3 ft. 3 in. (1m)
Length	34 ft. 8 in. (10.60 m)	26 ft. 2 in. (7.98 m)
Weight	85 lbs. (38.55 kg)	85 lbs. (38.55 kg)
Nominal Thickness	115 mils (2,921 microns)	160 mils (4,064 microns)
Net Coverage	100 sq. ft. (9.29 m ²)	75 sq. ft. (6.96 m ²)
Packaging	25 rolls/pallet	25 rolls/pallet

Eco-Facts	StressPly E	StressPly E FR Mineral
Recycled Content		
Pre-Consumer	27%	1%
Post-Consumer	8%	6%
Bio-Based Content	2.5%	2.5%
Reflectance	-	***0.72
Emittance	-	***0.90
SRI	-	***89

***With upgrade option Sunburst Minerals (0700-0029a) CRRC results.

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

Installation of this product with hot oxidized asphalt may result in exposure to hazardous chemicals. Special care and attention for proper product installation must be followed in all cases. For specific details refer to the NIOSH safe handling practices in publication No. 2003-107, as well as OSHA standard 1910.134 for further exposure precautions.



This product meets the requirements of CSA 123.23.

The StressPly E and StressPly E FR Mineral products are protected by U.S. Patent # 6,524,980.

For more information, visit us at: www.garlandco.com

The Garland Company, Inc.
3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.
209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX: 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

The Garland Company UK LTD
Second Way Centre, Second Way
Avonmouth, Bristol UK BS11 8DF
Phone: 011 44 1174 401050 (Outside UK)
Toll Free: 0800 328 5560 (Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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