

StressPly® Membranes

StressPly* • StressPly FR Mineral



OVERVIEW & FEATURES

StressPly membranes are high strength, puncture and fatigue resistant, rubber modified roof membranes designed for use as the waterproofing and reinforcement layer of a modified built-up roofing system. It consists of two layers of fiberglass reinforcement sandwiched by Styrene-Butadiene-Styrene (SBS) rubber in a high penetration index asphalt mixture.

StressPly membranes are designed for use as the top component in a roofing system where fire retardancy is required. StressPly membranes can also be used in conjunction with Garland's HPR® products as well as with conventional glass base sheets or fiberglass roofing felts. In addition, StressPly 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.

* Garland Greenhouse product

Security in Multi-Ply Construction - StressPly membranes are the top component of a multi-ply roof system. It combines the inherent advantages and proven performance of multiply protection with the strength, flexibility and elongation of elastomeric systems. This unique combination eliminates dependence on perfect workmanship, contact adhesive seaming, etc.

Factory Formulation Reduces Labor Expense - StressPly membranes are coated at the factory with reflective mineral granules. Consequently, there's no need to flood coat and gravel or aluminize the membrane's surface. Roof projects can be completed on a more timely basis. The end result is substantial labor expense savings.

Superior Strength - The StressPly membranes are reinforced with two layers of fiberglass. The superior strength provided by the dual fiberglass scrim resists the movement created by today's modern buildings. In addition, the dual fiberglass scrim in StressPly membranes provide tensile strength in excess of 200 pounds per inch in the machine and cross machine direction. This translates to long term resistance to splits and tears in the completed StressPly roof system.

Superior Fire Resistance - StressPly 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 FR Mineral has a Class A fire rating over a combustible roof deck with minimal underlayment.

APPLICATION

Hot-Applied

StressPly 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. StressPly is then solidly adhered to these base layers with mopping asphalt.

Cold-Applied

StressPly membranes can also be applied in Garland's cold applied Weatherking® or Green-Lock® membrane adhesive. One or two layers of heavy duty Garland approved ASTM D 4601, Type II base sheets are applied in Weatherking or Green-Lock membrane adhesive to the approved substrate. StressPly is then adhered to these base layers with Weatherking or Green-Lock Membrane adhesive.

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Technical Data	StressPly	StressPly FR Mineral
Tensile Strength	*MD 225 lbf./in. (39 kN/m) *XD 225 lbf./in. (39 kN/m) **MD 240 lbf./in. (42 kN/m) **XD 240 lbf./in. (42 kN/m)	*MD 225 lbf./in. (39 kN/m) *XD 225 lbf./in. (39 kN/m) **MD 240 lbf./in. (42 kN/m) **XD 240 lbf./in. (42 kN/m)
*Tear Strength	MD 300 lbf. (1335 N) XD 300 lbf. (1335 N)	MD 300 lbf. (1335 N) XD 300 lbf. (1335 N)
*Elongation	MD 6.0% XD 7.0%	MD 6.0% XD 8.0%
*Low Temperature Flex	-50°F (-46°C)	-30°F (-34.4°C)

Finished membrane meets and/or exceeds ASTM D 6163, 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	StressPly FR Mineral
Width	3 ft. 3 in. (1m)	3 ft. 3 in. (1m)
Length	34 ft. 8 in. (10.57 m)	26 ft. 2 in. (7.98 m)
Weight	85 lbs. (39 kg)	85 lbs. (39 kg)
Nominal Thickness	80 mils (2,032 microns)	145 mils (3,683 microns)
Net Coverage	100 sq. ft. (9.29 m²)	75 sq. ft. (6.96 m²)
Packaging	25 rolls/pallet	25 rolls/pallet

Eco-Facts	StressPly	StressPly FR Mineral
Recycled Content		
Pre-Consumer	27%	—
Post-Consumer	8%	5%

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.



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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A ± 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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