Membranes | Modified Bitumen
StressPly EUV | StressPly EUV FR Mineral
Technical Data Sheet

OVERVIEW & FEATURES

StressPly EUV membranes feature selected reinforcements and a unique rubber modified asphalt that incorporates post-consumer recycled crumb rubber. 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 EUV provides long-term performance in all types of new or retrofit construction.

The StressPly EUV Styrene-Butadiene-Styrene and Styrene-Ethylene-Butylene-Styrene Thermoplastic Elastomer (SBS+SEBS) 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 EUV is formulated with a proprietary additive blend called TripleBoost™, which provides superior mineral embedment and reduces thermal degradation of the finished membrane.

StressPly EUV 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 EUV 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.

Superior Strength & Weatherability - The superior strength provided by the KEVLAR fibers and the dual fiberglass and polyester combination scrim resists the movement created by today's modern buildings. The SBS rubber provides superior low temperature flexibility and long-term weathering characteristics. The SEBS rubber dramatically increases the overall life expectancy of the modified membrane. When SBS and SEBS are combined, the result is a superior weathering roof membrane. In addition, StressPly EUV membranes provide tensile strength in excess of 700 pounds per inch in the machine and cross machine direction. This translates into long-term resistance to splits and tears in the completed StressPly EUV membrane system.

Environmentally Friendly - StressPly EUV membranes utilize post-consumer scrap from tires in the roofing compound. In addition, StressPly EUV utilizes recycled boiler slag as the surfacing while the white Sunburst™ mineral on StressPly EUV FR Mineral is more than twice as reflective as standard roofing materials. With absolutely no sacrifice in quality, StressPly EUV membranes maintains Garland's reputation as a manufacturer of high-performance roofing systems while benefiting the environment.

Superior Mineral Embedment - StressPly EUV's formulation includes the TripleBoost Advanced Weathering System. This additive blend allows more surface area of the mineral to embed into Garland's proprietary compound, improving mineral retention to over twice the ASTM standard, which is proven to contribute to greater membrane longevity.

Factory Applied Sunburst Minerals - The StressPly EUV FR Mineral incorporates the unique reflective mineral, Sunburst, which provides long-term protection and added energy savings. The superior reflectivity of this mineral protects the membrane from UV damage and decreases roof temperatures.

Superior Fire Resistance - StressPly EUV membranes contain a fire retardant that is added to the compound during the manufacturing process. StressPly EUV membranes have a Class A fire rating over a combustible roof deck.

APPLICATION

Hot-Applied

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

Cold-Applied

StressPly EUV 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. The StressPly EUV membrane is then adhered to these base layers with Weatherking or Green-Lock Membrane Adhesive.

In hot and cold application, StressPly EUV may also be applied to a Garland approved modified base membrane.

STRESSPLY® EUV

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since 1895

Technical Data	StressPly EUV	StressPly EUV FR Mineral
Tensile Strength	*MD 700 lbf./in. (122.5 kN/m) *XD 750 lbf./in. (131.25 kN/m) **MD 750 lbf./in. (132 kN/m) **XD 800 lbf./in. (140 kN/m)	*MD 700 lbf./in. (122.5 kN/m) *XD 750 lbf./in. (131.25 kN/m) **MD 750 lbf./in. (132 kN/m) **XD 800 lbf./in. (140 kN/m)
***Tear Strength**	MD 1300 lbf. (5783 N) XD 1400 lbf. (6227 N)	MD 1300 lbf. (5783 N) XD 1400 lbf. (6227 N)
***Elongation**	MD 6.0% XD 6.0%	MD 6.0% XD 6.0%
***Low Temperature Flex**	-30°F (-34°C)	-30°F (-34°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 (50 mm/min @ 23 ± 2°C) ** 0.08 in/min @ 0 ± 3.6°F (2.0 mm/min @ -18 ± -3°C)

Roll Dimensions	StressPly EUV	StressPly EUV 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 m²)	75 sq. ft. (6.96 m²)
Packaging	20 rolls/pallet	20 rolls/pallet

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.

ECO-FACTS

Eco-Facts	StressPly EUV	StressPly EUV FR Mineral
Recycled Content		
Pre-Consumer	21%	–
Post-Consumer	6%	5%
Reflectance	–	***0.67 | 0/61
Emittance	–	***0.90 | 0.90
SRI	–	***82 | 74

***Sunburst Mineral (0700-0029b) CRRC results. 3-year aging in process.

ACCREDITATIONS

Garland Greenhouse

UL VALIDATED
✓ STRESSPLY® EUV FR MINERAL CONTAINS AN AVERAGE OF 5% POST-CONSUMER RECYCLED CONTENT

UL VALIDATED
✓ STRESSPLY® EUV CONTAINS AN AVERAGE OF 21% PRE-CONSUMER AND 6% POST-CONSUMER RECYCLED CONTENT

CRRC RATED PRODUCT
0700-0029b Sunburts Mineral on StressPly EUV FR Mineral

MIAMI-DADE COUNTY APPROVED

FM APPROVED

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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 Garland Corporate Office for more information.