

# StressPly® Max Membranes

StressPly Max • StressPly Max FR Mineral



## OVERVIEW & FEATURES

StressPly Max 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 superior strength is required. StressPly Max provides long-term performance in all types of new or retrofit construction.

The StressPly Max Styrene-Butadiene-Styrene and Styrene-Isoprene-Styrene (SBS+SIS) 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 Max membranes can also be used in conjunction with Garland's HPR® products and with conventional base sheets or fiberglass roofing felts. In addition, StressPly Max 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 & Elongation** - The StressPly Max membranes are reinforced with fiberglass yarns stitched within polyester, resulting in a membrane that provides superior strength and elongation performance. The KEVLAR fiber enhanced dual fiberglass and polyester reinforcement allow StressPly Max membranes to provide tensile strengths of 1,000 lbf./in. while also providing an elongation of over 16%. By combining both strength and flexibility, StressPly Max Membranes provide long-term performance by resisting both stresses and movement created by today's high-performance buildings.

**Increased Thickness & Weathering** - Providing over 170 mil (4,381 microns) of overall thickness, StressPly Max FR Mineral's highly polymerized compound provides more waterproofing, UV protection and weathering capabilities than traditional modified bitumen cap sheets. StressPly Max membranes combine both SBS and SIS rubber, further increasing its weathering properties.

**Factory Applied Sunburst Minerals** - StressPly Max FR Mineral incorporates the unique reflective Sunburst™ mineral, which provides long-term protection and added energy savings. The superior reflectivity of this mineral protects the membrane from UV damage and decreases under roof temperatures. Sunburst mineral membranes have an initial reflectivity of 40 to 50%.

**Superior Fire Resistance** - StressPly Max membranes contain a fire retardant, which 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 Max membranes have a Class A fire rating in a number of assemblies.

## APPLICATION

### Hot-Applied

StressPly Max 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 layers of Garland felts and/or base sheets are solidly bonded to the approved substrate. The StressPly Max membrane is then solidly bonded to these base layers with mopping asphalt.

### Cold-Applied

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

# StressPly® Max Membranes

Technical Data	StressPly Max	StressPly Max FR Mineral
<b>Tensile Strength</b>	*MD 1,000 lbf./in. (175 kN/m) *XD 1,000 lbf./in. (175 kN/m) **MD 1,050 lbf./in. (183.8 kN/m) **XD 1,150 lbf./in. (201.3 kN/m)	*MD 1,000 lbf./in. (175 kN/m) *XD 1,000 lbf./in. (175 kN/m) **MD 1,050 lbf./in. (183.8 kN/m) **XD 1,150 lbf./in. (201.3 kN/m)
<b>*Tear Strength</b>	MD 1,600 lbf. (7,117.1 N) XD 1,500 lbf. (6,672.3 N)	MD 1,500 lbf. (6,672.3 N) XD 1,700 lbf. (7,501.6 N)
<b>*Elongation</b>	MD 16% XD 16%	MD 16% XD 16%
<b>*Low Temperature Flex</b>	-40°F (-40°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 Max	StressPly Max FR Mineral
<b>Width</b>	3 ft. 3 in. (1m)	3 ft. 3 in. (1m)
<b>Length</b>	34 ft. 8 in. (10.57 m)	26 ft. 2 in. (7.98 m)
<b>Weight</b>	100 lbs. (45.4 kg)	95 lbs. (43.1 kg)
<b>Nominal Thickness</b>	145 mil (3,683 microns)	170 mil (4,318 microns)
<b>Net Coverage</b>	100 sq. ft. (9.29 m <sup>2</sup> )	75 sq. ft. (6.96 m <sup>2</sup> )
<b>Packaging</b>	20 rolls/pallet	20 rolls/pallet

Eco-Facts	StressPly Max	StressPly Max FR Mineral
<b>Recycled Content</b>		
<b>Pre-Consumer</b>	21%	-
<b>Post-Consumer</b>	6%	4%
<b>Reflectance</b>	-	***0.72
<b>Emittance</b>	-	***0.90
<b>SRI</b>	-	***89

\*\*\*Sunburst Mineral (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.



0700-0029  
Sunburst Mineral on  
StressPly Max FR Mineral



StressPly Max product is protected by U.S. Patent #6,524,980  
StressPly Max FR Mineral product is protected by  
U.S. Patent #6,524,980 and #6,933,007

For more information, visit us at: [www.garlandco.com](http://www.garlandco.com)

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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. ± 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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