

# Membranes | Modified Bitumen StressPly Legacy | StressPly Legacy FR Mineral Technical Data Sheet



## **OVERVIEW**

With a multitude of eco-friendly features, StressPly® Legacy membranes set a new standard for sustainability in modified asphalt technology. The mineral blend of StressPly Legacy FR Mineral incorporates smogreducing granules to significantly reduce pollution, while StressPly Legacy utilizes 100% recycled boiler slag. These modified membranes are composed of repurposed polymers that divert materials away from landfills and make use of post-industrial recycled streams: Styrene-Butadiene-Styrene (SBS), plastics, crumb rubber from tires, and recycled mineral fillers. The compound consists of 6 different environmentally conscious raw materials, including a high-strength ASTM D 6162 Type III puncture-resistant reinforcement that contains yarns from recycled plastic bottles.

With absolutely no sacrifice in quality, StressPly Legacy membranes maintain Garland's high performance roofing systems while benefiting the environment.

TripleBoost™ Advanced Weathering Package – StressPly Legacy membranes are engineered with Garland's prioprietary TripleBoost Advanced Weathering Package, providing unparalleled durability. TripleBoost improves the overall mineral retention, UV stability, and longevity of the roll. This enhanced longevity not only ensures a longer lifespan for the membrane but also provides greater sustainability benefits.

## **PACKAGING**

The packaging for StressPly Legacy membranes underscores the sustainable intent built into every aspect of the product. The corrugated sheets used in the packaging are crafted from 100% recycled materials and can be recycled after use. The stretch film is designed with a proprietary enzyme to ensure it will decompose within three years after being recycled. StressPly Legacy's hooder bags are made with 20% plant-based resins, significantly reducing the plastic use of the packaging. Additionally, the tape used for StressPly Legacy membranes is made of flatback paper tape, a renewable source, instead of the typical hotmelt tapes and adhesives. This packaging is a testament to the brand's unwavering commitment to environmental sustainability.

Taking this holistic approach to sustainability even further, all shipments of StressPly Legacy membranes ship carbon neutral with a transportation carbon offset.

#### **APPLICATION**

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

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

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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Technical Data	StressPly Legacy	StressPly Legacy FR Mineral
Tensile Strength	MD 550 lbf./in. (96.25 kN/m) XD 500 lbf./in. (87.5 kN/m)	MD 550 lbf./in. (96.25 kN/m) XD 500 lbf./in. (87.5 kN/m)
Tear Strength	MD 900 lbf. (4002 N) XD 950 lbf. (4225 N)	MD 900 lbf. (4002 N) XD 950 lbf. (4225 N)
Elongation	MD 10% XD 10%	MD 10% XD 10%
Low Temperature Flex	-30°F (-34°C)	-30°F (-34°C)
Width	3 ft. 3 in. (1 m)	3 ft. 3 in. (1 m)
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 ft <sup>2</sup> (9.29 m <sup>2</sup> )	75 ft² (6.96 m²)
Packaging	25 rolls / pallet	25 rolls / pallet

Finished membrane meets and/or exceeds ASTM D 6162, Type III. Test Method ASTM D 5147 is tested at: 2 in./min @  $73.4 \pm 3.6$ °F (50 mm/min @  $23 \pm 2$ °C)

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For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.

## **ECO-FACTS**

Recycled Content	StressPly Legacy	StressPly Legacy FR Mineral
Pre-Consumer	27%	2%
Post-Consumer	12%	12%
Bio-Based Content	1%	1%

Solar Reflectivity	StressPly Legacy FR Mineral
Reflectance Initial 3-Year Aged	** 0.67 ** 0.61
Emittance Initial 3-Year Aged	** 0.90 ** 0.90
SRI Initial 3-Year Aged	** 82 ** 73

 $<sup>^{\</sup>star\star}$  (Initial | Rapid Ratings) with upgrade option Sunburst Minerals (0700-0029b) CRRC results

## **ACCREDITATIONS**











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





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

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

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