

# PULSTRAND® 4100 HP AMPLIFY OPPORTUNITIES

For the pultrusion market, PulStrand® 4100 HP offers a new, higher performance glass that provides a boost in mechanical properties combined with corrosion resistance. These features can be leveraged for part performance enhancement or part redesign for cost optimization.

- Patented Owens Corning higher performance glass provides superior modulus with the excellent corrosion resistance expected from our Advantex<sup>®</sup> formulations.
- Maintains the processing performance of PulStrand<sup>®</sup> 4100, making it suitable for nearly all pultrusion applications.
- Multi-resin compatibility, with strong bonding in polyester, vinyl ester, polyurethane, acrylic, and epoxy resins.

## **PEAK PERFORMANCE FOR PULTRUSION APPLICATIONS**

## **Product Benefits**

## **Outstanding Mechanical Properties**

Superior mechanical properties, along with part stiffness offers improvements of greater than 10% possible in both flex and tensile. This enables either improved performance or total cost savings in the final part.

## **Reduced Cost**

Fast, uniform strand wet-out leads to higher glass loading, reducing resin demand; fast wet-out also increases production speed and productivity, resulting in reduced manufacturing cost.

## **Multi-resin Compatibility**

Excellent glass/resin bonding in polyester, vinyl ester, polyurethane, acrylic, and epoxy resins provides the processor maximum flexibility with one input glass. This reduces cost with less inventory to carry and eliminates the need for costly downtime and labor to change input glass during job changes.

## **Excellent Processing**

Smooth run-out combined with low fuzz properties results in smoother parts and less downtime for cleanup, enabling higher efficiencies and lower manufacturing costs.

## **Corrosion Resistant**

PulStrand® 4100 HP provides excellent corrosion resistance as an E-CR glass compared to standard E-glass, providing longer service life in applications facing corrosion.

## Application

PulStrand<sup>®</sup> 4100 HP maintains superior processing performance and multi-resin compatibility, making it suitable for almost all pultrusion applications including ladder rails, structural components, rebar, grating systems, and poles for the construction industry.

## **Technical Characteristics**

MECHANICAL PROPERTIES	FLEXURAL STRENGTH ASTM D790		FLEXURAL MODULUS ASTM D790		TENSILE MODULUS ASTM 3039		INTER-LAMINAR SHEAR STRENGTH ASTM D2344		FIBER
	Flexural Strength (ksi)	Flexural Strength (MPa)	Flexural Modulus (msi)	Flexural Modulus (GPa)	Tensile Modulus (msi)	Tensile Modulus (GPa)	Short Beam Strength (ksi)	Short Beam Strength (MPa)	WEIGHT FRACTION(%)
Polyester Resin	178	1227	8.1	56	8.8	61	6.5	45	~80
Polyurethane Resin	240	1654	8.5	59	8.7	60	11.0	76	~80

Availability & Packaging	TEX	YIELD	REGION AVAILABLE		
	4400 113		North America		
	4800 103		Europe, Asia Pacific		
	8800	56	North America		
	9600	52	Europe, Asia Pacific		

Rovings are available in a single-end internal-pull package. Each pallet weighs about 1 ton and can be packaged in bulk or Creel-Pak™ packaging format. Pallets are stretch wrapped for load stability and for protection during transport. All individual packages are wrapped with Tack-Pak™ packaging to aid package run-out and transfer. More information is available in the Customer Acceptance Standards.

#### Labeling Each individual package is labeled with information including product name, Tex/yield, producing plant, and production date.

## Glass fiber products should be stored in a cool, dry area. The glass fiber products must remain in their original Storage packaging material until use; the product should be stored in the workshop, within its original packaging, 48 hours prior to its utilization to allow it to reach the workshop temperature condition and prevent condensation, especially during cold weather. The packaging is not waterproof. Be sure to protect the product from the weather and other sources of water. When stored properly, the product has no known shelf life issues, but retesting is advised after three years from the initial production date to ensure optimum performance.



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