

# PULSTRAND<sup>®</sup> 4100 SINGLE-END ROVING MAXIMIZE PERFORMANCE, MINIMIZE COST

PulStrand<sup>®</sup> 4100 is specifically designed for fast wet-out, good processing, high glass loading, and excellent laminate properties, to maximize customers' processing and minimize their processing costs in pultrusion applications.

- PulStrand<sup>®</sup> 4100 Type 30<sup>®</sup> is a single-end roving designed for pultrusion, offering excellent processing and laminate performance with multi-resin compatibility.
- Produced with patented Advantex<sup>®</sup> corrosion-resistant E-CR glass by Owens Corning.

# **Product Benefits**

## **Outstanding Mechanical Properties**

• Excellent shear and flexural properties in major resin systems, providing maximum part strength and long part service life.

## **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, providing 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.
- Suitable for LFTP PA compounding applications.

## **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**

• Excellent corrosion resistance with Advantex<sup>®</sup> Glass compared to standard E-glass, providing longer service life in applications facing corrosion.

## Application

- Pultrusion applications in polyester, vinyl ester, polyurethane, and epoxy resin systems, using conventional dip bath or resin injection technology.
- Pultruded structural applications: ladder rails, grating systems, rebar, and poles, etc.

# **Technical Characteristics (Single-End Roving)**

The following data was generated using PulStrand<sup>®</sup> 4100 - 113 Yield (4400 Tex) on pultruded part cross-section of samples: 1 inch by 0.125 inch (25.4 mm by 3.175 mm).

MECHANICAL PROPERTIES	FLEXURAL STRENGTH ASTM D790		INTER-LAMINAR SHEAR STRENGTH ASTM D2344		FIBER WEIGHT
	Flexural Strength (ksi)	Flexural Strength (MPa)	Short Beam Strength (ksi)	Short Beam Strength (MPa)	FRACTION (%)
Polyester Resin	180	1241	6.9	48	81.5
Vinyl Ester Resin	204	1407	9.7	67	82
Polyurethane Resin	214	1476	13.3	92	80.5
Epoxy Resin	206	1421	11	76	78

# Availability

TEX	YIELD	REGION AVAILABLE
2000	250	NA
2400	207	EU, China
4400	113	NA, China, Japan, Korea
4800	103	EU, NA, China, India
8000	62	NA
8800	56	NA
9600	52	EU, NA, China, India

# Packaging (Standard Reference)

Rovings are available in a single-end internalpull package. Each pallet weighs about 1 ton and can be packaged in bulk or Creel-Pak<sup>™</sup> packaging format. Pallets are stretch-wrapped for load stability and for protection during transport. All individual packages are wrapped with Tack-Pak<sup>™</sup> packaging to aid package runout 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.

# Storage

Glass fiber products should be stored in a cool, dry area. The glass fiber products must remain in their original 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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# Americas

# Owens Corning Composite Materials, LLC One Owens Corning Parkway

Toledo, OH 43659 USA 1-800-GET-PINK®

## Europe

## European Owens Corning Fiberglas Sprl. 166 Chaussée de la Hulpe B-1170 Brussels Belgium +32 3 674 8211

## Asia Pacific

# Owens Corning Shanghai Regional Headquarters

40/F, Pudong Kerry Parkside, 115 Fang Dian Road, Pudong, Shanghai, 201204, China +86-21-6101 9666

https://www.owenscorning.com/composites | Composites@owenscorning.com

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