



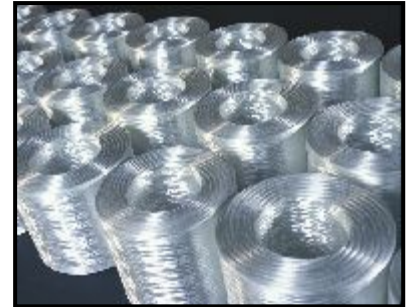
# 399

## Single-End Roving for Pultrusion

### PRODUCT DESCRIPTION

Single-End Rovings are produced by pulling individual fibers directly from the bushing and winding them onto a roving package ready for shipment. The uniform distribution of a proprietary sizing system ensures an excellent resin-to-glass binding through uniform distribution of the binding agent. This results in maximum strand integrity.

Single-End Rovings are manufactured using the T30® Roving state-of-the-art technology of Owens Corning, in conjunction with statistical process control in manufacturing facilities certified to ISO 9001.



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### PRODUCT APPLICATION

399 Roving is specifically designed for use in pultrusion applications in polyester, vinyl ester and epoxy resin systems.

399 has been designed for processes needing very high tex such as ladder rails, pultruded structural shapes and grating systems.



### FEATURES AND PRODUCT BENEFITS

- Excellent processing
  - 399 has no catenary, which means it will run out smoothly throughout the package under a variety of conditions and speeds.
  - 399 has been designed to run high tex with low fuzz properties that will result in smoother parts, less cleanup and improved machine efficiencies.
  - The Tack-Pak® packaging allows virtually 100 percent transfer efficiency.
- Multi-resin compatible
  - The silane-based sizing of 399 is designed for excellent adhesion with polyester, vinyl ester and epoxy resin systems. Multi-compatibility allows a change in resin systems without the need for the time consuming effort of changing glass in the creel.
- Excellent strand opening and spreading
  - 399 allows fast, uniform wet out of the strand in all resin systems. Fast wet out should allow for optimized part fabrication time, increased productivity and improved competitive position in the market.
- Available globally
  - 399 product line is available globally
  - Global availability allows for one product qualification rather than designing or modifying product or processes by region.
  - Global availability results in lower design and qualification costs.

# 399

## Single End Roving for Pultrusion

### PRODUCT AVAILABILITY

Yield	Tex
52, 56, 62, 113, 207, 250	9600

### MECHANICAL PROPERTIES

The following data was generated using production material 399 – 62 Yield (8000 tex)

Strand Tensiles : ASTM D 2343	Strength (MPa)	Strength (Ksi)
Epoxy resin	2270	330
Polyester F701 Resin	2204	320

Interlaminar Shear Strength NOL ring : ASTM D 2344	Dry shear strength (MPa)	Dry shear strength (psi)	shear strength Retention 72 hr boil (%)
Epoxy resin	58.8	8540	96%
Polyester F701 Resin	60.4	8770	85%

### PACKAGING

Rovings are available in a single-end internal-pull package. Each pallet weighed about 1 ton. Pallets are stretch wrapped for load stability. All doffs are wrapped with Tack-Pak® or shrinkable film for protection during transport. Full doffs are available in weights between 20 kg (45 lb.) and 40 kg (88 lb.) and they can be packaged in bulk or Creel-Pak® format. More information is available in the Customer Acceptance Standards

### STORAGE

Unless otherwise specified, it is recommended to store glass fiber products in a cool, dry area. The packaging is not waterproof. Be sure to protect the product from the weather and other sources of water. The glass fiber products must remain in their original packaging material until the point of usage. If these conditions are maintained, the glass fiber product should not undergo significant changes when stored for one year. Beyond one year after delivery, the product might evolve, specifically if stored outside the recommended conditions.

The best storage conditions are: temperatures between 22°C and 23°C and humidity between 60% and 65%.

The product should be stored in the workshop, within its original packaging, 48 hours prior to its utilization.



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