



WINDSTRAND® 4000 TYPE 30® ROVING MORE MODULUS HIGH PERFORMANCE

WindStrand® 4000 Type 30® roving combines high weaving efficiency and superior pultruding processability with the power of a higher-modulus glass specially designed for wind blades. WindStrand® 4000 allows more efficient blade designs for the production of lighter, longer blades that reduce the cost of wind energy.

- Produced with H² Glass, the second-generation high-modulus glass specifically designed for wind blades by Owens Corning.
- Compatible with epoxy, polyester, and vinyl ester resin systems. Contact us with questions regarding compatibility with other resin systems.

FOR PRODUCTION OF LONGER, LIGHTER BLADES

Product Benefits

Proven Performance

- Fiber Modulus: 91GPa – true performance proven by sonic modulus of glass fiber (NOL TR 65-87) testing method.

Excellent Processability

- High weaving efficiency that enables resilient fabrics.
- Superior pultruding processability for consistent profiles.
- Fast wet-out, good processing and handling characteristics.
- Operation at increased Fiber Volume Fraction (FVF) levels.

Reliable Supply

- Owens Corning® H² Glass is continuously produced at scale and increasing capacity, delivering reliable product supply and consistency.

Applications

WindStrand® 4000 is designed for the manufacturing of higher-performance fabrics and pultruded profiles, tailored for wind blade making. WindStrand® 4000 improves material systems for:

- Spar caps
- Shell
- Root
- Shear web
- Trailing edge



Properties

PRODUCT	NOMINAL FILAMENT DIAMETER (μm)	LINEAR DENSITY (TEX) ISO 1889	SOLIDS (%) ISO 1887	MOISTURE (%) ISO 3344
WS4000 600 Tex	17	600 +/- 30	0.55 +/- 0.12	<= 0.1
WS4000 1200 Tex		1,200 +/- 60		
WS4000 2400 Tex		2,400 +/- 120		

Product name code may differ based on resin system compatibility.

Availability and Packaging

This product is available globally. Type 30® single-end roving is available in a single-end internal-pull package. Each pallet weighs approximately 1 metric ton. Pallets are stretch-wrapped for load stability. All doffs are wrapped with Tack-Pak™ for protection and to aid package run-out and transfer. Full doffs are approximately 19 kg (40 lbs) and can be packaged in bulk or Creel-Pak® format.

Standard package

- Cylindrical doff without tube, outside diameter (OD) +/- 270 mm, height 260–300 mm
- Partial doffs have small diameters
- Max doff weight must not exceed 19 kg (40 lbs)
- Doff covered by a Tack-Pak™ film

Pallet

- Size: 1,150 x 1,150 mm, 4-way entry
- 16 bobbins (max OD) per layer
- Pallets 3 or 4 tiers high
- Pallet is stretch-wrapped

Labeling

Each individual doff is labeled with information including product name, Tex/yield, producing plant, and production date and weight. Each of the four pallets is labeled on one side.

Storage

Glass fiber products must remain in the packaging material until just prior to use. It is recommended to bring material into a workshop area at least 24 hours prior to use. WindStrand® 4000 roving should be stored in a dry area with ambient temperature optimally from 8°C to 26°C and relative humidity of 70% or less. To ensure optimal performance, retesting is recommended for products stored more than two years from the initial production. The packaging system is designed to allow stacking of two pallets. When stacking two high, care should be taken to place the top pallet correctly and smoothly.



**HOW WE
POWER NOW**

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