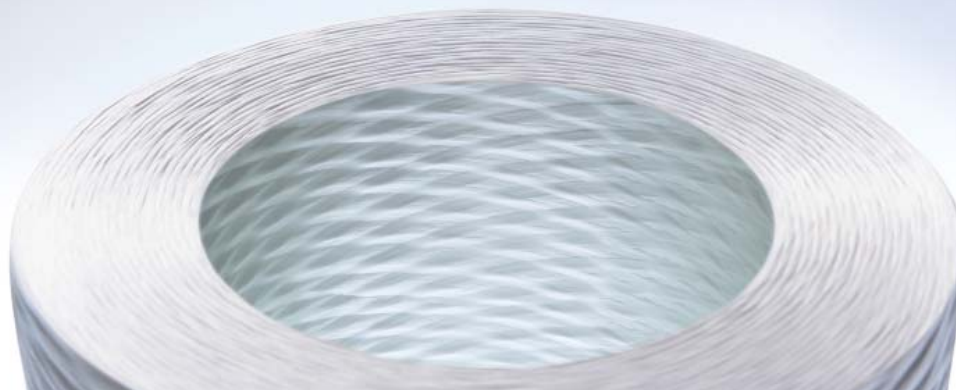


# WINDSTRAND® 3000 HIGH PERFORMANCE TYPE 30® ROVING

DNV-GL CERTIFIED



## DESCRIPTION

### ■ Glass description

H-glass specifically developed for applications that require high Modulus and long fatigue life, compared to traditional E-glass fibers

### ■ Resin compatibility: epoxy compatible sizing

## BENEFITS

- DNV-GL certified in all manufacturing locations
- Fiber Modulus greater than 87.5 GPa
- Enhanced 90° properties
- Operation at increased FVF (Fiber Volume Fraction) levels
- High weaving efficiency
- 3-6% blade weight reduction
- WindStrand® 3000 Roving chemistry provides superior shelf life in hot/humid storage environments

\* Owens Corning internal tests; or external test by designer, depending on the application, 2013



## APPLICATIONS

Helping with high performance design, and production of longer and lighter blades especially in low-wind on-shore locations and in off-shore locations

WindStrand® 3000 Roving is DNV-GL Certified in all manufacturing locations – 300, 600, 1200, and 2400 Tex



# WINDSTRAND® 3000 TYPE 30® ROVING FOR WIND ENERGY

FOR BLADE HIGH PERFORMANCE

## TECHNICAL CHARACTERISTICS (Single-End Roving)

Product offerings WindStrand® 3000 Roving Typical uni-directional laminate properties (Glass Vf 55%)		
Tensile Strength 0 degree Ultimate Avg	1 155 Mpa	ISO 527-5
Tensile Modulus 0 degree Ultimate Avg	51.2 Gpa	ISO 527-5
Tensile Strength 90 degree Ultimate Avg	59.1 Mpa	ISO 527-5

WindStrand® 3000 Roving is globally available in 300, 600, 1200, and 2400 Tex.

## PACKAGING

Rovings are available in a single-end internal-pull package. Each pallet weighs approximately 1 ton. Pallets are stretch wrapped for load stability. All doffs are wrapped with Tack-Pak™ for protection and to aid package runout and transfer. Full doffs are approximately 19 kg (40 lb.) and they can be packaged in bulk or Creel-Pak® format.

### Standard Package:

- Cylindrical bobbin without tube, Outside Diameter (OD) ± 270mm, height 260 – 300 mm.
- Partial bobbins have smaller diameter.
- Max bobbin weight must not exceed 20 kg.
- Bobbin covered by a Tack-Pack™ film.

### Pallet:

- Size: 1150 x 1150mm, 4 ways entry.
- 16 bobbins (max OD) per layer. Pallets are 3 or 4 tiers high
- Pallet is stretch-wrapped.

### Identification:

- Bobbin label (each bobbin).
- Four pallet labels, one on side of the pallet.

## STORAGE

Glass fiber products must remain in the packaging material until just prior to use. It is recommended to bring material in the workshop place at least 24 hours prior to use. WindStrand® 3000 Roving should be stored in a dry area. To insure 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. Owens Corning is not responsible for any damage resulting from stacking pallets higher than two high.

### Americas

Owens Corning  
Composite Materials, LLC.  
One Owens Corning Parkway  
Toledo, Ohio 43659  
1.800.GET.PINK™

### Europe

European Owens Corning  
Fiberglas Sprl.  
166 Chaussée de la Hulpe  
B-1170 Brussels  
Belgium  
+32 2 674 8211

### Asia Pacific

Owens Corning - OC Asia Pacific  
Shanghai Regional Headquarters  
40/F, Pudong Kerry Parkside,  
1155 Fang Dian Road, Pudong, Shanghai,  
201204, China  
+86-21-6101 9666

This information and data contained herein is offered solely as a guide in the selection of reinforcement. Rating contained in this publication is based on actual laboratory data, field test experience and observation of overall market use. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any responsibility or liability arising out of its use or performance. The user agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this publication shall not be construed as representations or warranties or as inducements to infringe any patent or violate any law safety code or insurance regulation. Owens Corning reserves the right to modify this document without prior notice.

© 2017 Owens Corning. All Rights Reserved. Wind blade picture copyright: iStockphoto.com  
Pub number: 10018978. WindStrand 3000\_product sheet\_ww\_09-2017\_rev4\_EN, September 2017

[SingleEndRoving@owenscorning.com](mailto:SingleEndRoving@owenscorning.com)  
[www.composites.owenscorning.com](http://www.composites.owenscorning.com)