Direct Roving Fiber Glass

HYBON® 2002



Product Description

***HYBON* 2002** roving from NEG is made of E-Glass fiber and is compatible with polyester, vinyl ester, phenolic and epoxy resin systems. *HYBON* 2002 roving is designed for woven or multi-axial knitting applications, which require good wet out and saturation together with good abrasion resistance and processing characteristics. *HYBON* 2002 roving is supplied globally for woven or multi-axial fabrics, which are used in applications such as reinforcements for wind blades. Each package is in a wrap film with each pallet stretch wrapped to protect the fiber glass roving from dirt and moisture.

User Benefits

- Multi-compatible with polyester, vinyl ester, phenolic, and epoxy resins.
- Hard strand tolerates difficult processing conditions without excessive filamentation.
- Single-end roving free from catenary.
- Fast wet out in thermoset resin systems.
- Consistent tex control and surface sizing system.
- Excellent package transfer efficiency through the use of an outer adhesive film.
- Manufacturing facilities operate quality management systems that comply with ISO 9001:2015 requirements.
- Germanischer Lloyd (GL) certified.

Packaging

- 48 packages/pallet
- 20 kg (44 lbs.) /package

DNV·GL

GLASS FOR FUTURE

Nippon Electric Glass

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Product Information

Type of Fiber	E-Glass (ASTM D 578-05, Section 4.2.2)						
Type of Sizing	**Silane**						
Roving Tex, nominal (g/km)	275	300	600	900	1200	2400	4800
Roving Yield, nominal (yd/lb)	1800	1650	827	550	413	206	103
Average Fiber Diameter (µm)	14	14	15	15	17	17	24
Other Tex/Yield options are available upon request. Contact your NEG Account Manager.							

Storage

These products should be stored in a dry area with ambient temperature and relative humidity, optimally from 20°C to 25°C and between 50% and 70%, respectively. Protect product from all sources of water at all times. A First-In-First-Out (FIFO) stock control system is recommended to minimize the influence of storage conditions. Prior to use, products should be conditioned in the work area for a minimum of 24 hours. If contents of a package unit are partially used, the unit should be closed until the next use. With proper storage, there are no known limitations on the shelf life of the product. To insure optimal performance, retesting is recommended for products stored more than two years from the initial production date.

Caution

To avoid the possibility of potential injury, maintain column stability by limiting pallet stacking to two (2) high as noted on individual shipping containers.

NOTE: This data is offered for informational purposes only in the selection of a composite reinforcement. The information contained in this bulletin is based on actual laboratory data. We believe that this information is reliable, but do not guarantee its applicability to the process of the user or assume any liability arising out of its use or performance. The user, by accepting the products described, 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 laminates when using this or any other reinforcement. ***Because of numerous factors affecting the results, we make no warranty of any kind, expressed or implied, including those of merchantability and fitness for a particular purpose. Statements in this document shall not be construed as representations or warranties or as inducements to infringe any patent or violate any law, safety code, or insurance regulation.***

Mechanical Properties

Impregnated Strand Tensile Testing (ASTM D2343)

Tensile Strength (MPa/ksi)	= 2290/332
Glass Content by Weight (%)	= 61.5

Interlaminar Shear Strength (ASTM D2344)

Anhydride Cured Epoxy

Horizontal Shear Dry (MPa/ksi)	= 75.8/11.0
Horizontal Shear Wet*(MPa/ksi)	= 69.6/10.1
Strength Retention (%)	= 91.8
Glass Content by Weight (%)	= 62.4

Unsaturated Polyester

Horizontal Shear Dry (MPa/ksi)	= 60.1/8.72
Horizontal Shear Wet*(MPa/ksi)	= 51.7/7.51
Strength Retention (%)	= 86.1
Glass Content by Weight (%)	= 66.2

*6 Hour water boil conditioning

More Information

http://www.neg.co.jp/inquiry/

http://www.neg.co.jp/en/inquiry/

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