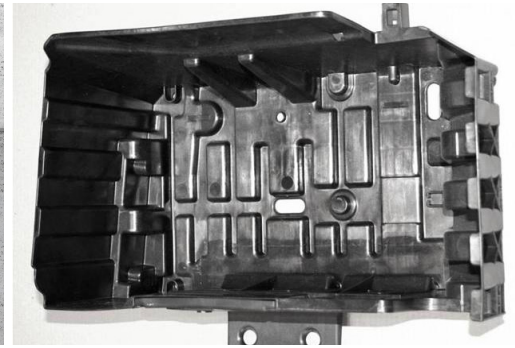




# 4510



## Product Description

**TUFROV 4510** roving from NEG is a tailor-made reinforcement for long fiber polyamide (PA) processes such as granulate long fiber thermoplastic (GLFT) and direct long fiber thermoplastic (DLFT). TUFROV 4510 rovings offer hydrolytic stability in high performance applications. Each package is in a wrap film with each pallet stretch wrapped to protect the fiber glass roving from dirt and moisture.

## User Benefits

- Excellent spreadability of the roving filaments in thermoplastic pultrusion allowing complete resin impregnation.
- Sizing on the fiber surface has been tailored to provide optimal balance of dry strength, fiber resin wetting and minimal sizing rub-off on process contact points.
- Available in outside and inside payout.
- Excellent processing in pultruded GLFT processes for molding of high performance long glass PA end products.
- Excellent wet out and saturation in polyamide (PA) resin.
- Highest mechanical as-molded properties with best-in-class long-term hydrolytic stability.
- Supported by NEG's extensive technical resources.
- Manufacturing facilities operate quality management systems that comply with ISO 9001:2015 requirements.

## Packaging

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

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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)	1200	1460	2200	2400
Roving Yield, nominal (yd/lb)	413	340	225	206
Average Fiber Diameter (μm)	12 or 17	14	16	17
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.**

## More Information

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

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

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