

ZOLTEK™ PX35 CONTINUOUS TOW

DESCRIPTION

ZOLTEK PX35 continuous carbon fiber is manufactured from polyacrylonitrile (PAN) precursor. The consistency in yield and mechanical properties that are provided by large filament count strands gives the user the ability to design and manufacture composite materials with greater confidence and allows for efficient and fast buildup of carbon fiber reinforced composite structures.

ZOLTEK PX35 50K fibers are available with a variety of sizing formats for different composite processing methods and for compatibility with a wide range of standard resin systems. ZOLTEK quality focuses on spool to spool consistency yielding low coefficients of variation.

APPLICATIONS

Wind energy, automotive, petroleum production, aviation, marine, industrial, other transportation, medical (including X-ray), sports and recreation, etc.

RECOMMENDED USE

Any article or component benefiting from the unique properties of carbon fiber composites.



MATERIAL OVERVIEW	SI	US
Tensile Strength (ASTM D4018)	4,137 MPa	600 ksi
Tensile Modulus (ASTM D4018)	242 GPa	35 msi
Elongation (ASTM D4018)	1.7%	1.7%
Electrical Resistivity	0.00155 ohm-cm	0.00061 ohm-in
Density	1.81 g/cc	0.065 lb/in ³
Fiber Diameter	7.2 microns	0.283 mils
Carbon Content	95%	95%
Yield	267 m/kg	397 ft/lb
Textile Units	267 m/kg	33700 denier
Spool Weight	5.5 kg, 11 kg	12 lb, 24 lb
Spool Length	1,500 m , 3,000 m	1,640 yd, 3,280 yd

The properties listed in this datasheet are average values and do not constitute any warranty or guarantee of values. This information should only be used for the purposes of material selection. Please contact us for more details.



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TYPICAL PACKAGING

Wound on a 3" x 11" (7.6 cm x 28 cm) cardboard spool, sealed in heat shrunk covering, and placed in cardboard box; two splices are permitted per every 1,500m spool and five per every 3,000m spool.

Spool outside diameter:

» 1,500 m: 180-185 mm

» 3,000 m: 235-245 mm

APPROVAL

DNV-GL has granted approval to ZOLTEK PX35 Continuous Tow for use in wind energy and marine applications.



CERTIFICATION

ZOLTEK PX35 Continuous Tow is manufactured in accordance with ZOLTEK's written and published data. A Certificate of Conformance is provided with each shipment.

SAFETY

Obtain, read, and understand the Material Safety Data Sheet (SDS) before use of this or any other ZOLTEK product.

STORAGE

PX35 carbon fiber is an inert material with unlimited shelf life and property stability. However, the sizing on PX35 is best used within 24 months of manufacture date as long as they are stored in standard warehouse conditions.

Standard warehouse conditions typically defined as 75° F (24° C), relative humidity of 55 % and warehousing best practices followed with fiber stored in its original packaging (shrink wrap on and closed in a box with lid to protect from environmental damage) until use.

