

Technical Datasheet

ZOLTEK™ PX35 Prepreg Tapes

DESCRIPTION

ZOLTEK produces uni-directional (UD) prepreg tapes based on ZOLTEK carbon fiber. ZOLTEK prepreg is ideal for large-volume composite applications where high production throughput, excellent composite properties, and low material cost are important. A wide selection of epoxy resin formulations meets most processing and composite property requirements for tack, toughness, surface finish, cure time, cure temperature, and delivered composite strength and modulus. Custom formulations are also available. ZOLTEK prepreg properties, such as fiber areal weight (FAW), resin content, and width, are readily adjusted to exactly meet customer requirements. Packaging options include core size, customer specified kitting requirements, and custom labeling. ZOLTEK prepreg production is geared to large volumes and low cost. Special projects are welcomed.



RECOMMENDED USE

Any article or component benefiting from the unique properties of carbon fiber composites. Excellent for hand lay-up or automated fabrication processes.

APPLICATIONS

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

MATERIAL OVERVIEW	SI	US
Fiber Areal Weight	150 to 600 g/m ²	4.4 to 17.7 oz/yd ²
Resin Content	28 to 45 percent (wt/wt)	
Width*	Up to 127 cm	Up to 50 in
Length**	Up to 1,500 m	Up to 4,900 ft
Resin	Several epoxy resin formulations are available for processing flexibility and to meet the requirements of diverse applications. ZOLTEK™ resins vary in cure, mechanical property translation, elongation, out time, etc.	

* Production efficiency and pricing may be impacted by tape and width selection

** Maximum roll size is 1,000 lbs net prepreg weight

The properties listed in this datasheet 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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Vf = 60%

TYPICAL PROPERTIES	SI	US	METHOD
Tensile Strength	1,850 MPa	268 ksi	DIN EN ISO 527
Tensile Modulus	130 GPa	18.9 msi	DIN EN ISO 527
Compressive Strength	1,320 MPa	191 ksi	DIN EN ISO 14126
Compressive Modulus	125 GPa	18.1 msi	DIN EN ISO 14126
Interlaminar Shear Strength	70 MPa	10 ksi	ASTM D 2344
+/-45 In-Plane Shear Strength	59 MPa	8.6 ksi	DIN EN ISO 14129
+/-45 In-Plane Shear Modulus	4.8 GPa	696 ksi	DIN EN ISO 14129
Glass Transition Temperature (Tg,G")	120°C	248°F	DMA

*Depends on cure cycle.

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TYPICAL PACKAGING

- ZOLTEK uni-directional prepreg tapes are supplied on heavy-walled cardboard tubes. Typical tube diameter is 30 cm unless specified otherwise by the customer.
- ZOLTEK prepreg tapes are supplied with poly (polyethylene) film on one side only.
- Special packaging is available upon request such as markings, labeling, roll size, packaging configuration and type, etc.

CERTIFICATION

A Certificate of Analysis is included with each shipment: either a standard ZOLTEK Certificate of Analysis or certification to a customer specification and/or other special requirements, as requested by the customer.

SAFETY

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

APPROVAL

DNV-GL has granted approval to ZOLTEK PX35 Prepreg for use in wind energy applications.



DNV·GL

Approval No. WP 1030030 HH

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