

ZOLTEK™ PX35 PULTRUDED PROFILES

DESCRIPTION

Pultrusion is a cost-effective, continuous process for producing fiber-reinforced composite parts. ZOLTEK PX35 carbon fiber tows are fed into our proprietary impregnation and curing process which creates engineered carbon fiber profiles. These profiles enable rapid section buildup when laminating thick parts such as wind blade spar caps. High fiber alignment achieved with pultrusion delivers consistently superior properties in laminates compared to any other composite manufacturing processes.



Pultruded Plate

APPLICATIONS

- Wind Energy (pre-cured carbon composite as the structural member of the turbine blade)
- Infrastructure
- Offshore Drilling
- Mining
- Other Structural Reinforcement Applications



Pultruded Rods

PERFORMANCE PROPERTIES

- High Stress & Stiffness
- Corrosion Resistant
- High Fiber Volume
- Extremely Low Void Content
- Locked In Filament Alignment

PLATES: COMPOSITE PROPERTIES	SI		US	
	Resin Type	Epoxy	Vinyl Ester	Epoxy
Tensile Strength	2,350 MPa	2,100 MPa	340 ksi	305 ksi
Tensile Modulus	140 GPa	140 GPa	20.3 msi	20.3 msi
Compressive Strength	1,450 MPa	1,400 MPa	210 ksi	203 ksi
Compressive Modulus	130 GPa	130 GPa	18.9 msi	18.9 msi
Density	1.6 g/cm ³		0.058 lb/in ³	

*Typical data based on a 3.2 mm thick flat plate at 62% Vf.

RODS: COMPOSITE PROPERTIES	SI		US	
	Resin Type	Epoxy	Vinyl Ester	Epoxy
Tensile Strength	2,200 MPa	2,000 MPa	319 ksi	290 ksi
Tensile Modulus	150 GPa	145 GPa	21.8 msi	21.0 msi
Density	1.6 g/cm ³		0.058 lb/in ³	
Strain (Elongation at Break)	1.4%			

*Typical data based on a 6.4 mm diameter rod.

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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ABOUT ZOLTEK PX35 PULTRUSION

ZOLTEK's pultruded profiles are produced with our own commercial grade ZOLTEK PX35 Continuous Tow carbon fiber. Our pultruded profiles are typically produced with a thermoset epoxy or vinyl ester resin in a proprietary low-cost, high-throughput process.

Available in plates, rods, tubes, or custom profile shapes.

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.