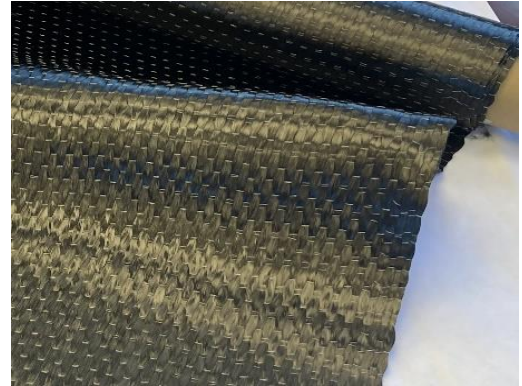


ZOLTEK™ PX35 UNI-DIRECTIONAL FABRICS

DESCRIPTION

ZOLTEK PX35 weave-heat Bonded Uni-Directional Carbon Fabrics are produced from our Zoltek PX35-1 (multi-compatible with epoxy, vinyl ester), PX35-7 (compatible with vinyl ester) 50K Continuous Tow Carbon Fiber. Unique stabilized techniques are utilized to obtain an easy-to-handle CF fabrics when process with wet layup. The fabrics can be custom cut on site to minimize scrap thanks to the weft bonding yarn.



| MATERIAL | UD300 | UD300 | UD600 | UD600 |
|--------------------------------|---|---|--|--|
| 0° Carbon (nominal) Zoltek 50K | 300 g/m ² | 300 g/m ² | 615 g/m ² | 615 g/m ² |
| PES 226 dtex | 14 g/m ² | 14 g/m ² | 14 g/m ² | 14 g/m ² |
| Total Fabrics Weight (nominal) | 314 g/m ² 9.34 oz/yd ² | 314 g/m ² 9.34 oz/yd ² | 629 g/m ² 17.92 oz/yd ² | 629 g/m ² 17.92 oz/yd ² |
| Width | 300 mm 12" | 610 mm 24" | 300 mm 12" | 610 mm 24" |
| Stitch Length | 19mm 3/4" | | | |
| Stitch Pattern | plain | | | |
| Cured Thickness/Ply | 0.37mm | | 0.69mm | |
| Roll Length | 50 m or custom length | | | |

Average Values Shown

*Yarn is coated with Low melt temperature Co polymer (melting temp 90C)

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| PROPERTY | Test Norm | Typical test value with Epoxy resin (DGEBA / Amine) / wet layup vacuum | |
|--|-----------|--|----------------|
| TYPICAL FIBER PROPERTIES | | SI | US |
| Tensile strength | | 4137 Mpa | 600 Ksi |
| Tensile Elongation | | 1.7% | 1.7% |
| Tensile Modulus | | 242 Gpa | 600 Ksi |
| COMPOSITE GROSS LAMINATE PROPERTIES | | SI | US |
| Ultimate tensile Strength in primary Fiber Direction | D3039 | 1514 Mpa | 220 Ksi |
| Elongation at Break | D3039 | 1.2% | 1.2% |
| Tensile Modulus | D3039 | 124.0 Gpa | 17.98 Ksi |
| Longitudinal compressive strength | D3410 | 1033 Mpa | 149 Ksi |
| Longitudinal Compressive Modulus | D3410 | 114.0 Gpa | 16.53 Ksi |
| Nominal Laminate thickness | | 0.57 mm | 0.57 mm |
| Fiber volume content | | 58% | 58% |
| Fabric type | | Woven Quasi UD | Woven Quasi UD |
| Fabric total areal weight | | 624 gsm | 18.40 oz/yd2 |
| Fabric carbon fiber areal weight | | 615 gsm | 17.69 oz/yd2 |

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TYPICAL PACKAGING

Wound on a cardboard core, shrink wrap. packaged in a cardboard box. Rolls stacked horizontally on pallets when shipping.

Requirements other than standard widths and roll lengths should be specified by purchase order.

APPROVAL

DNV-GL: Zoltek fabrics are made from Zoltek PX35 tow. DNV-GL has granted approval to ZOLTEK PX35 Continuous Tow for use in wind energy and marine applications.

CERTIFICATION

ZOLTEK PX35 Fabrics are 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.