

ZOLTEK™ PX35 Uni-Directional Fabrics

Stitch-Bonded Uni-Directional Carbon Fabrics

DESCRIPTION

ZOLTEK PX35 Stitch-Bonded Uni-Directional Carbon Fabrics are produced from our ZOLTEK PX35 50K Continuous Tow Carbon Fiber. Unique fiber spreading techniques are utilized to obtain a wide range of UD fabric weights for a varied set of composite part applications. Quick composite part build-up is cost effectively achieved with our diverse weight range of low-cost carbon fabric products.



| MATERIAL OVERVIEW | UD150 | UD200 | UD300 | UD400 | UD500 | UD600 | UD900V |
|------------------------------|---|---|---|--|--|--|--|
| 0° Carbon ZOLTEK PX35 50K | 158 | 200 | 309 | 403 | 500 | 600 | 865 |
| 90° Glass 34 dtex | 10 | 10 | 10 | 10 | 10 | 10 | — |
| Polyester Veil | — | — | — | — | — | — | 30 |
| Polyester Stitch 76 dtex | 6 | 6 | 6 | 6 | 6 | 6 | 5 |
| Total Fabric Weight | 182 g/m ² 5.37 oz/yd ² | 224 g/m ² 6.61 oz/yd ² | 333 g/m ² 9.82 oz/yd ² | 419 g/m ² 12.36 oz/yd ² | 516 g/m ² 15.22 oz/yd ² | 624 g/m ² 18.40 oz/yd ² | 900 g/m ² 26.54 oz/yd ² |

Average Values Shown

*Epoxy resin binder available upon customer request.

| FABRIC CONSTRUCTION | UD150 | UD200 | UD300 | UD400 | UD500 | UD600 | UD900V |
|---------------------|--|--------|--------|--------|--------|--------|---------|
| Stitch Length | A variety of stitch lengths are available to meet application requirements. | | | | | | |
| Stitch Pattern | A variety of stitch patterns are available to meet application requirements. | | | | | | |
| Cured Thickness/Ply | .21 mm | .25 mm | .37 mm | .46 mm | .57 mm | .69 mm | 1.00 mm |
| Roll Width | 30 cm - 61 cm - 122 cm | | | | | | 122 cm |
| Roll Length | 100 m | | | | 50 m | | 30 m |

Average Values Shown

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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| COMPOSITE PROPERTIES | SI | US | METHOD |
|----------------------|-----------|----------|------------------|
| Tensile Strength | 1,400 MPa | 203 ksi | DIN EN ISO 527 |
| Tensile Modulus | 119 GPa | 17.2 msi | DIN EN ISO 527 |
| Compressive Strength | 980 MPa | 142 ksi | DIN EN ISO 14126 |
| Compressive Modulus | 118 GPa | 17.5 msi | DIN EN ISO 14126 |
| Flexural Strength | 1,290 MPa | 187 ksi | DIN EN ISO 14125 |
| Flexural Modulus | 112 GPa | 16.2 msi | DIN EN ISO 14125 |

*Typical Fiber Volume Fraction (FVF) is 55%.
Standard Epoxy Resin System*

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TYPICAL PACKAGING

Wound on cardboard cone, sealed in polyethylene bag, and placed in cardboard box. Rolls stacked horizontally on pallets when shipping.

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

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.

APPROVAL

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



DNV·GL

Approval No. WP 1030011 HH

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