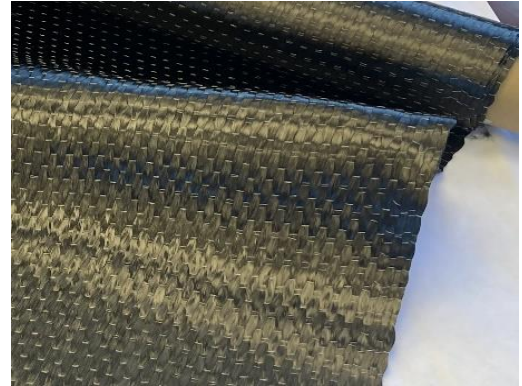


# ZOLTEK™ PX35 UNI-DIRECTIONAL FABRICS

## 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 <sup>2</sup>                            | 300 g/m <sup>2</sup>                            | 615 g/m <sup>2</sup>                             | 615 g/m <sup>2</sup>                             |
| PES 226 dtex                   | 14 g/m <sup>2</sup>                             | 14 g/m <sup>2</sup>                             | 14 g/m <sup>2</sup>                              | 14 g/m <sup>2</sup>                              |
| Total Fabrics Weight (nominal) | 314 g/m <sup>2</sup><br>9.34 oz/yd <sup>2</sup> | 314 g/m <sup>2</sup><br>9.34 oz/yd <sup>2</sup> | 629 g/m <sup>2</sup><br>17.92 oz/yd <sup>2</sup> | 629 g/m <sup>2</sup><br>17.92 oz/yd <sup>2</sup> |
| Width                          | 300 mm<br>12"                                   | 610 mm<br>24"                                   | 300 mm<br>12"                                    | 610 mm<br>24"                                    |
| Stitch Length                  | 19mm<br>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.