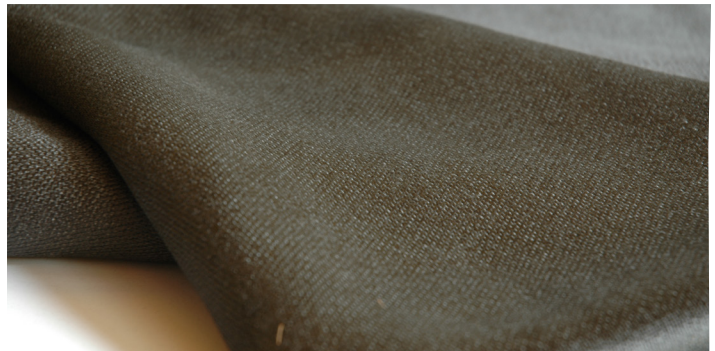


ZOLTEK™ PXFB CARBON FABRICS

DESCRIPTION

ZOLTEK PXFB carbonized fabrics are produced from 100% ZOLTEK OX fabrics; that are continuously carbonized and supplied in roll form. ZOLTEK PXFT carbon fabrics can be used in many applications, including: stationary energy storage batteries, high temperature and chemically corrosive applications and as carbon composite materials for friction end uses. Customers can apply their own post treatments and the felt is easy to process into customer specific designs.



MATERIAL OVERVIEW	PXFB PLAIN WEAVE		PXFB SATIN WEAVE	
	SI	US	SI	US
Fiber Precursor Type	PAN			
Fabric OX Yarn Count	2/27 Wc		2/10 Wc	
Fabric Construction (Warp x Weft)	210 x 168 Yarns / 10 cm	53 x 43 Yarns / inch	168 x 158 Yarns / 10 cm	43 x 40 Yarns / inch
Areal Weight	122g/m ²	3.6 oz/yd ²	339 g/m ²	10.0 oz/yd ²
Thickness at 0.02 MPa Compression	0.39 mm	0.015 in	1.04 mm	0.041 in
Fabric Bulk Density	0.316 g/cc	0.0114 lb/in ³	0.328 g/cc	0.0119 lb/in ³
Roll Width	66 cm	26 in	95 cm	37 in
Roll Length ¹	73 m	80 yds	36 m	40 yds
Fiber Diameter	7 - 9 μm			
Fiber Density	~1.78 g/cc (~0.0643 lb/in ³)			
Carbon Content	~95%			
Electrical Resistivity ²	8.0 Ω mm		7.3 Ω mm	
BET Surface Area	~1 m ² /g			
Open Porosity ³	82%		82%	
Tensile Strength in Warp / Weft Direction ⁴	19.0 MPa/20.8 MPa		10.8 MPa/10.5 MPa	
Elongation in Warp / Weft Direction ⁴	2.9% / 3.9%		5.9% / 13.7%	
Trace Metals	Fe < 20 ppm, Na < 30 ppm, Ca < 20 ppm			

*All data provided are typical properties and are not to be considered specification values.



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- 1 - Due to the manufacturing process, individual roll lengths will vary.
- 2 - Z-direction electrical resistivity was measured at 1 A current for 30x30 mm sample, 20% compression, thickness direction.
- 3 - Open porosity is calculated as $1 - \frac{w_a}{d \cdot \rho_c}$ where w_a is fabric areal weight, d is fabric thickness and ρ_c is the fiber density.
- 4 - Tensile and Elongation properties are tested according to ASTM D 5035-06.

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.

TYPICAL PACKAGING

All fabrics are wound on a 3" diameter core, sealed in plastic, and placed in a cardboard box. Listed below are the standard box dimensions. All dimensions are internal measurements.

26 inch fabric width: 12" x 12" x 37"

37 inch fabric width: 12" x 12" x 50"

SAFETY

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

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