

TECHNICAL DATASHEET

ZOLTEK™ PXFT カーボンフェルト

DESCRIPTION

Zoltek PXFTカーボンフェルトは、Zoltek OX耐炎繊維のニードルパンチフェルトを炭化焼成した製品です。

同製品は、蓄電池、高温の炉ライニング材、酸性ガスのミストフィルター、炭素繊維複合材等の用途で使用されております。
フェルトの後処理は容易で、自由にカットすることも出来ます。



MATERIAL OVERVIEW	PXFT FT-1750		PX35 FT1035-100		PXFT FT-540		PXFT FT-445		PXFT FT-305		PXFT FT-50	
	SI	US	SI	US	SI	US	SI	US	SI	US	SI	US
Fiber Precursor Type	PAN											
Areal Weight	1750 g/m²	51.6 oz/yd²	1035 g/m²	30.5 oz/yd²	540 g/m²	15.9 oz/yd²	445 g/m²	13.1 oz/yd²	305 g/m²	9.0 oz/yd²	49 g/m²	1.45 oz/yd²
Thickness	15.5 mm	0.61 in	10.5 mm	0.41 in	5.2 mm	0.20 in	3.9 mm	0.15 in	3.0 mm	0.12 in	0.6 mm	0.024 in
Felt Bulk Density	0.11 g/cc	0.0041 lb/in³	0.10 g/cc	0.0037 lb/in³	0.10 g/cc	0.0037 lb/in³	0.11 g/cc	0.0041 lb/in³	0.10 g/cc	0.0037 lb/in³	0.077 g/cc	0.0028 lb/in³
Roll Width	98 cm	39 in	98 cm	39 in	98 cm	39 in	98 cm	39 in	98 cm	39 in	80 cm	31.5 in
Roll Length¹	45 m	50 yds	45 m	50 yds	45 m	50 yds	45 m	50 yds	80 m	87 yds	250 m	275 yds
Fiber Diameter	7 – 9 µm											
Fiber Density	1.75 g/cc (0.063 lb/in³)											
Carbon Content	95 %											
Electrical Resistivity²	9.1 Ω mm		6.3 Ω mm		3.9 Ω mm		4.0 Ω mm		6.0 Ω mm		72.7 Ω mm	
BET Surface Area	~ 1 m²/g											
Total Pores Diameter	NT		NT		NT		NT		16.7 nm		NT	
Open Porosity³	94 %		94 %		94 %		94 %		94 %		96 %	
Tensile Strength in MD / XMD Direction⁴	0.30 MPa / 0.30 MPa		0.19 MPa / 0.34 MPa		0.43 MPa / 0.41 MPa		0.28 MPa / 0.48 MPa		0.67 MPa / 0.36 MPa		1.47 MPa / 0.51 MPa	
Elongation in MD / XMD Direction⁴	18.6% / 26.0%		41.5% / 39.5%		19.3% / 18.1%		18.5% / 18.3%		13.2% / 16.0%		7.9% / 25.5%	
Trace Metals	Fe < 10 ppm, Ti < 10 ppm, Na < 30 ppm, Ca < 20 ppm, Si > 10 ppm											



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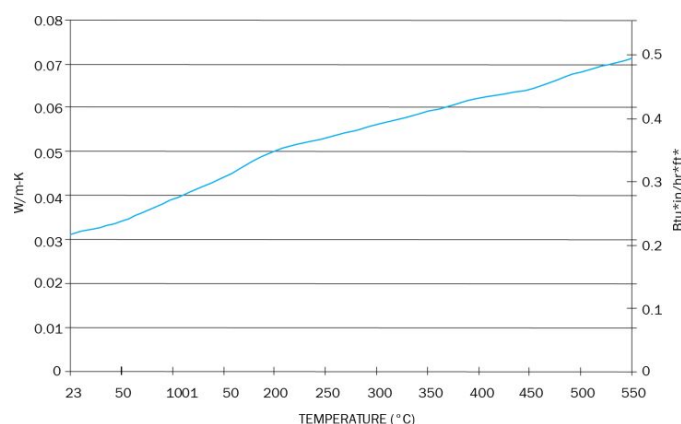
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- 1 - Due to the manufacturing process, individual roll lengths will vary.
- 2 - Z-direction electrical resistivity for FT-1750 was measured under a compressed thickness of 14 mm, while all the other felts were measured after being compressed to 80% of their original thickness.
- 3 - Open porosity is calculated as $1 - \frac{w_a}{d \cdot \rho_c}$ where w_a is felt areal weight, d is felt 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 purpose of material selection. Please contact us for more details.

THERMAL CONDUCTIVITY



TYPICAL PACKAGING

Wound on cardboard cone, sealed in polyethylene bag, and placed in cardboard box.

CERTIFICATION

ZOLTEK PXFT Felts 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.

<お問い合わせ>



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