



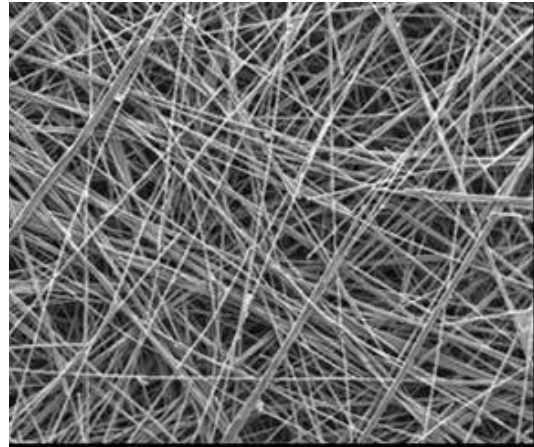
PRODUCT INFORMATION

Spectracarb 2050A Porous Carbon-Carbon Paper

OVERVIEW

Spectracarb™ 2050A porous carbon-carbon papers, developed by Spectracorp and now produced by Engineered Fibers Technology, are available for use in demanding applications such as PEM fuel cell gas diffusion layer (GDL) electrodes. As shown in the photomicrograph, Spectracarb paper consists of a graphitized network of resin-bonded carbon fiber. This offers good air/water permeability, while also providing structural rigidity and high electrical conductivity.

The Spectracarb 2050A series is available in a wide range of standard grades, and EFT has the capability of producing custom grades from pilot-scale to full commercial production in order to meet customer-specific targets.



FEATURES

- High electrical conductivity, resulting from high temperature graphitization process
- High strength and durability
- Good air permeability and moisture transport
- Laboratory support is available to help prototype new customer applications
- Domestically produced

AVAILABILITY

The following grades of Spectracarb 2050A paper are available on a commercial basis:

Type	0550	0850	1050	1240	1535	1550	1732	2050	6060	13555*	15085*
Thickness, mil (mm)	5 (0.13)	8 (0.20)	10 (0.25)	12 (0.31)	15 (0.38)	15 (0.38)	17 (0.43)	20 (0.50)	60 (1.5)	135 (3.43)	150 (3.80)
Density, g/cm ³	0.50	0.50	0.50	0.40	0.35	0.50	0.32	0.50	0.60	0.55	0.85

* Suitable for channeled flow field applications. Machined versions can be supplied.

- Typical dimensions are: 380 x 380, 400 x 400 and 500 x 500 mm.
- Custom grades and sizes (up to 1 square meter) can be fabricated to meet customer specifications.

TYPICAL PROPERTIES

Measurement	Units	Spectracarb 2050A-0850
Thickness	mm	0.20
Basis Weight	g/m ²	88
Geometric Density	g/cm ³	0.44
Air Permeability, through-plane	cfm/ft ²	35
Electrical Resistivity through-plane in -plane	mΩ·cm ² mΩ·cm	18 5.4
Thermal Conductivity through-plane (@ 25°C) through-plane (@ 100°C) in -plane (@ 25°C) in -plane (@ 100°C)	W/m·K	3.4 3.6 20.7 24.2
Tensile Strength MD XM D	MPa	4.2 2.6
Flexural Strength	MPa	37
Flexural Stiffness	GPa	9.5
Compressive Strength	MPa	2.1

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