

## Cytec Thornel® Graphite Cloth

Category : Carbon , Carbon Fiber , Graphite , Other Engineering Material , Composite Fibers

### Material Notes:

Data provided by the manufacturer, Amoco Performance Products, Inc. Carbon and graphite cloths, consisting entirely of flexible filaments, are produced by pyrolysis of rayon cloth at high temperatures to yield products with a high degree of purity. The cloth flexibility results from the very small filament diameter. These are fair conductors of electricity. At room temperature the volume resistivity of graphite cloth is about 40 times that of "Nichrome" wire. Graphite cloth resistance decreases with temperature, reaching half of the room temperature value at 1315°C. 99.9% carbon assay, 8.9 µm filament diameter Thornel® products were sold by Amoco and are now owned by Cytec.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Cytec-Thornel-Graphite-Cloth.php](http://www.lookpolymers.com/polymer_Cytec-Thornel-Graphite-Cloth.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	Cloth 1.42 g/cc per He measurement
Specific Surface Area	1.0 m <sup>2</sup> /g	1.0 m <sup>2</sup> /g	Cloth

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	103 MPa	14900 psi	
Modulus of Elasticity	13.0 GPa	1890 ksi	In Tension

Thermal Properties	Metric	English	Comments
Thermal Conductivity	10.0 W/m-K	69.4 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	266 °C	511 °F	1% weight loss in 10,000 hours at 266°C.
	360 °C	680 °F	1% weight loss in 100 hours at 360°C
	493 °C	919 °F	Short term (1% weight loss in 1.0 hours)
Maximum Service Temperature, Inert	3650 °C	6600 °F	Sublimation temperature. Graphite cloth is stable in vacuum and inert atmospheres approaching this temperature.

Optical Properties	Metric	English	Comments
Emissivity (0-1)	0.90	0.90	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00600 ohm-cm	0.00600 ohm-cm	or 0.39 ohm/sq (W) or 0.53 ohm/sq (F)

## **Contact Songhan Plastic Technology Co.,Ltd.**

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