

> THORNEL[®] T-300 PAN-BASED FIBER

TECHNICAL DATA SHEET



DESCRIPTION

THORNEL[®] T300 is a standard modulus fiber supplied with 1% UC.309 epoxy-compatible sizing. T300 1K, 6K and 12K products are offered in never-twisted form. T300 3K is offered in both twisted and never-twisted forms.

CHARACTERISTICS

Table 1 | THORNEL T300 Fiber Characteristics by Tow Count

Property	1K ¹	3K ¹	6K ¹	12K ¹
Yield, yd/lb (m/g)	7500 (15.05)	2510 (5.04)	1255 (2.52)	627 (1.26)
Linear Density, g/m	0.066	0.198	0.398	0.792
Fiber Area in Yarn Cross Section, in ² x 10 ³	5.3	17.5	35.0	70.0

¹K refers to 1,000s of filaments in a strand

PROPERTIES

Table 2 | Typical Properties of THORNEL T-300 PAN-Based Fiber²

Property	Value
Tensile Strength, ksi (GPa)	545 (3.75)
Tensile Modulus, Msi (GPa)	33.5 (231)
Density, lb/in ³ (g/cm ³)	0.064 (1.76)
Elongation at Break, %	1.6
Filament Diameter, micron	7.0
Carbon Assay, %	92
Surface Area, m ² /g	0.45
Electrical Resistivity, micro-ohm-m	18.0
Thermal Conductivity, BTU/hr-ft-°F (W/mK)	5 (8)
CTE at 70°F (21°C), ppm/°F (ppm/°C)	-0.30 (-0.60)

²Typical properties; actual properties of individual lots will vary within specification limits

THORNEL® T-300 PAN-BASED FIBER

TECHNICAL DATA SHEET

PRODUCT HANDLING AND SAFETY

Cytec Engineered Materials recommends wearing clean, impervious gloves when working with carbon fibers to reduce skin contact and to avoid contamination of the product.

Materials Safety Data Sheets (MSDS) and product labels are available upon request and can be obtained from any Cytec Engineered Materials Office.

DISPOSAL OF SCRAP MATERIAL

Disposal of scrap material should be in accordance with local, state, and federal regulations.

CONTACT INFORMATION

GLOBAL HEADQUARTERS

Tempe, Arizona
tel 480.730.2000
fax 480.730.2088

NORTH AMERICA

Olean, New York
tel 716.372.9650
fax 716.372.1594

Winona, Minnesota
tel 507.454.3611
fax 507.452.8195

Greenville, Texas
tel 903.457.8500
fax 903.457.8598

Springfield, Massachusetts
tel 1.800.253.4078
fax 716.372.1594

Anaheim, California
tel 714.630.9400
fax 714.666.4345

Cytec Carbon Fibers LLC
Piedmont, South Carolina
tel 864.277.5720
fax 864.299.9373

Havre de Grace, Maryland
tel 410.939.1910
fax 410.939.8100

Orange, California
tel 714.639.2050
fax 714.532.4096

D Aircraft Products, Inc.
Anaheim, California
tel 714.632.8444
fax 714.632.7164

EUROPE AND ASIA

Wrexham, United Kingdom
tel +44.1978.665200
fax +44.1978.665222

Östringen, Germany
tel +49.7253.934111
fax +49.7253.934102

Shanghai, China
tel +86.21.5746.8018
fax +86.21.5746.8038

DISCLAIMER: The data and information provided in this document have been obtained from carefully controlled samples and are considered to be representative of the product described. Cytec Engineered Materials (CEM) does not express or imply any guarantee or warranty of any kind including, but not limited to, the accuracy, the completeness or the relevance of the data and information set out herein. Because the properties of this product can be significantly affected by the fabrication and testing techniques employed, and since CEM does not control the conditions under which its products are tested and used, CEM cannot guarantee that the properties provided will be obtained with other processes and equipment. No guarantee or warranty is provided that the product is adapted for a specific use or purpose and CEM declines any liability with respect to the use made by any third party of the data and information contained herein. CEM has the right to change any data or information when deemed appropriate.

All trademarks are the property of their respective owners.