

## Cytec Thornel® T-300 12K Carbon Fiber, Polyacrylonitrile (PAN) Precursor

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

### Material Notes:

Data provided by the manufacturer, Amoco Performance Products, Inc. Continuous length, high strength, high modulus fiber made from a polyacrylonitrile precursor. The fiber surface has been treated to increase the interlaminar shear strength in a resin matrix composite. 12000 filaments/strand, 92% carbon assay, 7 µm filament diameter, 1.26 m/g yield, 0 tpm twist, 0.452 mm<sup>2</sup> fiber area in yarn cross section. 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-T-300-12K-Carbon-Fiber-Polyacrylonitrile-PAN-Precursor.php](http://www.lookpolymers.com/polymer_Cytec-Thornel-T-300-12K-Carbon-Fiber-Polyacrylonitrile-PAN-Precursor.php)

| Physical Properties   | Metric                 | English                   | Comments |
|-----------------------|------------------------|---------------------------|----------|
| Density               | 1.76 g/cc              | 0.0636 lb/in <sup>3</sup> |          |
| Specific Surface Area | 0.45 m <sup>2</sup> /g | 0.45 m <sup>2</sup> /g    |          |

| Mechanical Properties      | Metric   | English    | Comments   |
|----------------------------|----------|------------|------------|
| Tensile Strength, Ultimate | 3650 MPa | 529000 psi |            |
| Elongation at Break        | 1.4 %    | 1.4 %      |            |
| Modulus of Elasticity      | 231 GPa  | 33500 ksi  | In Tension |

| Thermal Properties   | Metric               | English                            | Comments |
|----------------------|----------------------|------------------------------------|----------|
| CTE, linear          | -0.600 µm/m-°C       | -0.333 µin/in-°F                   |          |
|                      | @Temperature 20.0 °C | @Temperature 68.0 °F               |          |
| Thermal Conductivity | 8.50 W/m-K           | 59.0 BTU-in/hr-ft <sup>2</sup> -°F |          |

| Electrical Properties  | Metric         | English        | Comments |
|------------------------|----------------|----------------|----------|
| Electrical Resistivity | 0.00180 ohm-cm | 0.00180 ohm-cm |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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