

# CARBON PEEK

## DESCRIPTION

Carbon PEEK is a high-performance thermoplastic composite reinforced with carbon fibers, offering exceptional strength, heat resistance, and dimensional stability for demanding industrial, medical and aerospace applications.

PROPERTIES	English	SI Metric	ASTM TEST
<b>PERMANENCE</b>			
Primary Additive	30%	30%	
Specific Gravity	1.41	1.41	ASTM D 792
<b>MECHANICAL</b>			
Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.1 ft-lbs/in	59 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	35000 psi	241 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	3.50 x 10 <sup>6</sup> psi	24132 MPa	D 638
Flexural Strength	55000 psi	379 MPa	D 790
<b>THERMAL</b>			
Coefficient of Linear Thermal Expansion			
Flow Direction	0.2 x 10 <sup>-5</sup> /°F	0.4 x 10 <sup>-5</sup> /°C	E 831
Transverse Direction	2.4 x 10 <sup>-5</sup> /°F	4.4 x 10 <sup>-5</sup> /°C	E 831
<b>PROPERTY NOTES</b>			
Data herein is typical and not to be construed as specifications.			
Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.			
<b>GENERAL PROCESSING FOR INJECTION MOLDING</b>			
Injection Pressure	12000 - 18000 psi	83 - 124 MPa	
Melt Temperature	660 - 750 °F	349 - 399 °C	
Mold Temperature	325 - 425 °F	163 - 218 °C	
Drying	3 hrs @ 300 °F	3 hrs @ 149 °C	
Moisture Content	0.10 %	0.10 %	
Dew Point	-20 °F	-29 °C	

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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