



**Product Data Sheet &
General Processing Conditions**

**RTP 4285
Thermoplastic Polyimide (TPI)
Carbon Fiber**

Properties are based on annealed specimens.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	30 %	30 %	
Specific Gravity	1.42	1.42	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0002 - 0.0010 in/in	0.02 - 0.10 %	D 955

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.6 ft-lbs/in	85 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	32000 psi	221 MPa	D 638
Tensile Elongation	1.5 - 2.5 %	1.5 - 2.5 %	D 638
Tensile Modulus	2.90×10^6 psi	19996 MPa	D 638
Flexural Strength	48000 psi	331 MPa	D 790
Flexural Modulus	2.80×10^6 psi	19306 MPa	D 790

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	> 500 °F	> 260 °C	D 648
Ignition Resistance*			
Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
Coefficient of Linear Thermal Expansion			
Flow Direction	$0.3 \times 10^{-5}/^{\circ}\text{F}$	$0.5 \times 10^{-5}/^{\circ}\text{C}$	E 831
Transverse Direction	$2.6 \times 10^{-5}/^{\circ}\text{F}$	$4.7 \times 10^{-5}/^{\circ}\text{C}$	E 831

PROPERTY NOTES

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.

* This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

** Values per RTP Company testing.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	20000 - 28000 psi	138 - 193 MPa
Melt Temperature	750 - 780 °F	399 - 416 °C
Mold Temperature	350 - 450 °F	177 - 232 °C
Drying	6 hrs @ 400 °F	6 hrs @ 204 °C
Moisture Content	0.01 %	0.01 %
Dew Point	-40 °F	-40 °C

PROCESSING NOTES

Desiccant Type Dryer Required.