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Product Data Sheet & General Processing Conditions

RTP 4287 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	40 %	40 %	
Specific Gravity	1.42	1.42	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 in/in	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	12.0 ft-lbs/in	641 J/m	D 4812
Tensile Strength	35000 psi	241 MPa	D 638
Tensile Elongation	1.5 %	1.5 %	D 638
Tensile Modulus	4.20 x 10 ⁶ psi	28959 MPa	D 638
Flexural Strength	50000 psi	345 MPa	D 790
Flexural Modulus	3.70 x 10 ⁶ psi	25512 MPa	D 790

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	> 600 °F	> 316 °C	D 648
Ignition Resistance*			
Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801

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.