



**Product Data Sheet &
General Processing Conditions**

**RTP 2381 A
Rigid Thermoplastic Polyurethane (RTPU)
Carbon Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	10 %	10 %	
Specific Gravity	1.22	1.22	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 - 0.0020 in/in	0.10 - 0.20 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	2.5 ft-lbs/in	133 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	16000 psi	110 MPa	D 638
Tensile Elongation	4.0 - 8.0 %	4.0 - 8.0 %	D 638
Tensile Modulus	1.00 x 10 ⁶ psi	6895 MPa	D 638
Flexural Strength	23000 psi	159 MPa	D 790
Flexural Modulus	0.90 x 10 ⁶ psi	6206 MPa	D 790

THERMAL

Ignition Resistance* Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635
--	--------------	-------------	-------

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	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	430 - 470 °F	221 - 243 °C
Mold Temperature	125 - 200 °F	52 - 93 °C
Drying	4 - 6 hrs @ 225 °F	4 - 6 hrs @ 107 °C
Moisture Content	0.01 %	0.01 %
Dew Point	-40 °F	-40 °C

PROCESSING NOTES

Desiccant Type Dryer Required.