



**Product Data Sheet &
General Processing Conditions**

**RTP 381
Polycarbonate (PC)
Carbon Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|--|-----------------------|------------------|------------------|
| Primary Additive | 10 % | 10 % | |
| Specific Gravity | 1.24 | 1.24 | D 792 |
| Molding Shrinkage 1/8 in (3.2 mm) section | 0.0010 - 0.0030 in/in | 0.10 - 0.30 % | D 955 |

MECHANICAL

| | | | |
|--|----------------------------|-------------|--------|
| Impact Strength, Izod notched 1/8 in (3.2 mm) section | 1.5 ft-lbs/in | 80 J/m | D 256 |
| unnotched 1/8 in (3.2 mm) section | 11.0 ft-lbs/in | 587 J/m | D 4812 |
| Tensile Strength | 15500 psi | 107 MPa | D 638 |
| Tensile Elongation | 3.0 - 5.0 % | 3.0 - 5.0 % | D 638 |
| Tensile Modulus | 1.10 x 10 ⁶ psi | 7584 MPa | D 638 |
| Flexural Strength | 23500 psi | 162 MPa | D 790 |
| Flexural Modulus | 0.90 x 10 ⁶ psi | 6206 MPa | D 790 |

ELECTRICAL

| | | | |
|--------------------|--------------|--------------|-------|
| Volume Resistivity | < 1E6 ohm.cm | < 1E6 ohm.cm | D 257 |
|--------------------|--------------|--------------|-------|

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 | 550 - 600 °F | 288 - 316 °C |
| Mold Temperature | 180 - 250 °F | 82 - 121 °C |
| Drying | 4 hrs @ 250 °F | 4 hrs @ 121 °C |
| Moisture Content | 0.02 % | 0.02 % |
| Dew Point | -20 °F | -29 °C |

PROCESSING NOTES

Desiccant Type Dryer Required.