



**Product Data Sheet &  
General Processing Conditions**

**RTP 2383 A  
Rigid Thermoplastic Polyurethane (RTPU)  
Carbon Fiber**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Primary Additive                             | 20 %                  | 20 %             |                  |
| Specific Gravity                             | 1.26                  | 1.26             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0001 - 0.0015 in/in | 0.01 - 0.15 %    | D 955            |

**MECHANICAL**

|  |                            |             |        |
|--|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 3.3 ft-lbs/in              | 176 J/m     | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 18.2 ft-lbs/in             | 972 J/m     | D 4812 |
| Tensile Strength   | 22500 psi                  | 155 MPa     | D 638  |
| Tensile Elongation                                       | 4.0 - 5.0 %                | 4.0 - 5.0 % | D 638  |
| Tensile Modulus  | 1.90 x 10 <sup>6</sup> psi | 13100 MPa   | D 638  |
| Flexural Strength  | 34000 psi                  | 234 MPa     | D 790  |
| Flexural Modulus   | 1.63 x 10 <sup>6</sup> psi | 11239 MPa   | D 790  |

**THERMAL**

|  |              |             |       |
|--|--------------|-------------|-------|
| Ignition Resistance*<br>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**

|                    | <b>English</b>     | <b>SI Metric</b>   |
|--------------------|--------------------|--------------------|
| 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.