



**Product Data Sheet &  
General Processing Conditions**

**RTP 1700 FR  
Modified Polyphenylene Oxide (PPO)  
Flame Retardant  
Halogen Free**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|----------------------------------------------|-----------------------|------------------|------------------|
| Specific Gravity                             | 1.13                  | 1.13             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0060 - 0.0090 in/in | 0.60 - 0.90 %    | D 955            |
| Water Absorption, 24 hrs @ 23°C              | 0.080 %               | 0.080 %          | D 570            |

**MECHANICAL**

|                                                          |                            |          |        |
|----------------------------------------------------------|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 3.5 ft-lbs/in              | 187 J/m  | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 28.0 ft-lbs/in             | 1495 J/m | D 4812 |
| Tensile Strength                                         | 7000 psi                   | 48 MPa   | D 638  |
| Tensile Elongation                                       | > 10.0 %                   | > 10.0 % | D 638  |
| Tensile Modulus                                          | 0.35 x 10 <sup>6</sup> psi | 2413 MPa | D 638  |
| Flexural Strength                                        | 11000 psi                  | 76 MPa   | D 790  |
| Flexural Modulus                                         | 0.33 x 10 <sup>6</sup> psi | 2275 MPa | D 790  |

**THERMAL**

|                                                |               |              |        |
|------------------------------------------------|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 190 °F        | 88 °C        | D 648  |
| @ 66 psi (455 kPa)                             | 200 °F        | 93 °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**

|                    | <b>English</b>    | <b>SI Metric</b> |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa     |
| Melt Temperature   | 480 - 550 °F      | 249 - 288 °C     |
| Mold Temperature   | 150 - 200 °F      | 66 - 93 °C       |
| Drying             | 2 hrs @ 200 °F    | 2 hrs @ 93 °C    |
| Moisture Content   | 0.10 %            | 0.10 %           |
| Dew Point          | 0 °F              | -18 °C           |