



**Product Data Sheet &  
General Processing Conditions**

**RTP 4005 TFE 10  
Polyphthalamide (PPA)  
Glass Fiber  
PTFE Lubricated**

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

| PERMANENCE                                   | English               | SI Metric     | ASTM<br>TEST |
|----------------------------------------------|-----------------------|---------------|--------------|
| Primary Additive                             | 30 %                  | 30 %          |              |
| Specific Gravity                             | 1.50                  | 1.50          | D 792        |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0020 - 0.0040 in/in | 0.20 - 0.40 % | D 955        |

**MECHANICAL**

|                                                          |                            |             |        |
|----------------------------------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.8 ft-lbs/in              | 96 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 14.0 ft-lbs/in             | 747 J/m     | D 4812 |
| Tensile Strength                                         | 28000 psi                  | 193 MPa     | D 638  |
| Tensile Elongation                                       | 2.0 - 3.0 %                | 2.0 - 3.0 % | D 638  |
| Tensile Modulus                                          | 1.65 x 10 <sup>6</sup> psi | 11377 MPa   | D 638  |
| Flexural Strength                                        | 42000 psi                  | 290 MPa     | D 790  |
| Flexural Modulus                                         | 1.55 x 10 <sup>6</sup> psi | 10687 MPa   | D 790  |

**ELECTRICAL**

|                    |                    |                    |       |
|--------------------|--------------------|--------------------|-------|
| Volume Resistivity | 1E14 - 1E16 ohm.cm | 1E14 - 1E16 ohm.cm | D 257 |
|--------------------|--------------------|--------------------|-------|

**THERMAL**

|                                                |              |             |       |
|------------------------------------------------|--------------|-------------|-------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | > 525 °F     | > 274 °C    | D 648 |
| 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**

|                    | English            | SI Metric          |
|--------------------|--------------------|--------------------|
| Injection Pressure | 10000 - 18000 psi  | 69 - 124 MPa       |
| Melt Temperature   | 575 - 625 °F       | 302 - 329 °C       |
| Mold Temperature   | 275 - 325 °F       | 135 - 163 °C       |
| Drying             | 4 - 6 hrs @ 225 °F | 4 - 6 hrs @ 107 °C |
| Moisture Content   | 0.05 %             | 0.05 %             |
| Dew Point          | -25 °F             | -32 °C             |

**PROCESSING NOTES**

Desiccant Type Dryer Required.