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Ponciplastics.com



## Product Data Sheet & General Processing Conditions

### RTP 4004 FR A HS Polyphthalamide (PPA) Glass Fiber Flame Retardant Heat Stabilized

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

| PERMANENCE                      | English               | SI Metric     | ASTM TEST |
|---------------------------------|-----------------------|---------------|-----------|
| Primary Additive                | 25 %                  | 25 %          |           |
| Specific Gravity                | 1.68                  | 1.68          | D 792     |
| Molding Shrinkage               |                       |               |           |
| 1/8 in (3.2 mm) section         | 0.0020 - 0.0040 in/in | 0.20 - 0.40 % | D 955     |
| Water Absorption, 24 hrs @ 23°C | 0.200 %               | 0.200 %       | D 570     |

#### MECHANICAL

|                                   |                            |           |        |
|-----------------------------------|----------------------------|-----------|--------|
| Impact Strength, Izod             |                            |           |        |
| notched 1/8 in (3.2 mm) section   | 1.2 ft-lbs/in              | 64 J/m    | D 256  |
| unnotched 1/8 in (3.2 mm) section | 9.0 ft-lbs/in              | 481 J/m   | D 4812 |
| Tensile Strength                  | 20000 psi                  | 138 MPa   | D 638  |
| Tensile Elongation                | 1.5 %                      | 1.5 %     | D 638  |
| Tensile Modulus                   | 1.75 x 10 <sup>6</sup> psi | 12066 MPa | D 638  |
| Flexural Strength                 | 27000 psi                  | 186 MPa   | D 790  |
| Flexural Modulus                  | 1.60 x 10 <sup>6</sup> psi | 11032 MPa | D 790  |

#### ELECTRICAL

|                    |               |               |       |
|--------------------|---------------|---------------|-------|
| Volume Resistivity | > 1E15 ohm.cm | > 1E15 ohm.cm | D 257 |
|--------------------|---------------|---------------|-------|

#### THERMAL

|                        |               |              |        |
|------------------------|---------------|--------------|--------|
| Deflection Temperature |               |              |        |
| @ 264 psi (1820 kPa)   | 485 °F        | 252 °C       | D 648  |
| Ignition Resistance*   |               |              |        |
| Flammability**         | V-0 @ 1/32 in | V-0 @ 0.8 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

|                    | 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.