



**Product Data Sheet &  
General Processing Conditions**

**RTP 4300 S-1000  
Polysulfone/Polycarbonate Alloy (PSU/PC)  
Unfilled  
UL94**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Specific Gravity                             | 1.22                  | 1.22             | 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              | 0.200 %               | 0.200 %          | D 570            |

**MECHANICAL**

|  |                            |          |        |
|--|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.7 ft-lbs/in              | 91 J/m   | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | No Break                   | No Break | D 4812 |
| Tensile Strength   | 9500 psi                   | 66 MPa   | D 638  |
| Tensile Elongation                                       | 100.0 %                    | 100.0 %  | D 638  |
| Tensile Modulus  | 0.35 x 10 <sup>6</sup> psi | 2413 MPa | D 638  |
| Flexural Strength  | 13500 psi                  | 93 MPa   | D 790  |
| Flexural Modulus   | 0.38 x 10 <sup>6</sup> psi | 2620 MPa | D 790  |

**THERMAL**

|  |               |              |       |
|--|---------------|--------------|-------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 300 °F        | 149 °C       | D 648 |
| Ignition Resistance*                           |               |              |       |
| Flammability                                   | V-1 @ 1/16 in | V-1 @ 1.5 mm | UL94  |
| Flammability                                   | V-0 @ 1/8 in  | V-0 @ 3.0 mm | UL94  |

**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.

**GENERAL PROCESSING FOR INJECTION MOLDING**

|                    | <b>English</b>    | <b>SI Metric</b> |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa     |
| Melt Temperature   | 540 - 620 °F      | 282 - 327 °C     |
| Mold Temperature   | 150 - 210 °F      | 66 - 99 °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.

15 Jun 2005 SAC

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein.

Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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