



**Product Data Sheet &  
General Processing Conditions**

**RTP 304 SE  
Polycarbonate (PC)  
Glass Fiber  
Self Extinguishing  
Halogen Free  
UL94 V-2**



The RTP 300 SE series represent a range of glass fiber reinforced, self-extinguishing polycarbonate materials which offer outstanding dimensional stability with improved rigidity, heat resistance and strengths over the base resin.

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

| <b>PERMANENCE</b>               | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|---------------------------------|-----------------------|------------------|------------------|
| Primary Additive                | 25 %                  | 25 %             |                  |
| Specific Gravity                | 1.37                  | 1.37             | D 792            |
| Molding Shrinkage               |                       |                  |                  |
| 1/8 in (3.2 mm) section         | 0.0010 - 0.0030 in/in | 0.10 - 0.30 %    | D 955            |
| Water Absorption, 24 hrs @ 23°C | 0.090 %               | 0.090 %          | D 570            |

**MECHANICAL**

|                                   |                            |             |        |
|-----------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod             |                            |             |        |
| notched 1/8 in (3.2 mm) section   | 3.0 ft-lbs/in              | 160 J/m     | D 256  |
| unnotched 1/8 in (3.2 mm) section | 18.0 ft-lbs/in             | 961 J/m     | D 4812 |
| Tensile Strength                  | 17000 psi                  | 117 MPa     | D 638  |
| Tensile Elongation                | 3.0 - 4.0 %                | 3.0 - 4.0 % | D 638  |
| Tensile Modulus                   | 1.10 x 10 <sup>6</sup> psi | 7584 MPa    | D 638  |
| Flexural Strength                 | 26000 psi                  | 179 MPa     | D 790  |
| Flexural Modulus                  | 0.90 x 10 <sup>6</sup> psi | 6206 MPa    | D 790  |
| Hardness                          |                            |             |        |
| Rockwell, R                       | 118                        | 118         | D 785  |

**ELECTRICAL**

|                                  |               |               |       |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 480 VPM       | 18.9 kV/mm    | D 149 |
| Dielectric Constant, 1 MHz, Dry  | 3.3           | 3.3           | D 150 |
| Dissipation Factor, 1 MHz, Dry   | 0.0080        | 0.0080        | D 150 |
| Arc Resistance                   | 120 s         | 120 s         | D 495 |
| Volume Resistivity               | > 1E16 ohm.cm | > 1E16 ohm.cm | D 257 |

**THERMAL**

|                        |               |              |       |
|------------------------|---------------|--------------|-------|
| Deflection Temperature |               |              |       |
| @ 264 psi (1820 kPa)   | 295 °F        | 146 °C       | D 648 |
| @ 66 psi (455 kPa)     | 300 °F        | 149 °C       | D 648 |
| Ignition Resistance*   |               |              |       |
| Flammability           | V-2 @ 1/16 in | V-2 @ 1.5 mm | UL94  |
| Flammability           | V-1 @ 1/8 in  | V-1 @ 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   | 550 - 600 °F      | 288 - 316 °C   |
| Mold Temperature   | 180 - 250 °F      | 82 - 121 °C    |
| Drying             | 4 hrs @ 250 °F    | 4 hrs @ 121 °C |
| Moisture Content   | 0.02 %            | 0.02 %         |
| Dew Point          | -20 °F            | -29 °C         |

#### PROCESSING NOTES

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Desiccant Type Dryer Required.