




**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

| PERMANENCE | English | SI Metric | ASTM TEST |
|---------------------------------|-----------------------|------------------|------------------|
| 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 ⁶ psi | 7584 MPa | D 638 |
| Flexural Strength | 26000 psi | 179 MPa | D 790 |
| Flexural Modulus | 0.90 x 10 ⁶ 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

English **SI Metric**

| | | |
|--------------------|-------------------|----------------|
| 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

Desiccant Type Dryer Required.