




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
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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.

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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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