



**Product Data Sheet &
General Processing Conditions**

**RTP 300 FR
Polycarbonate (PC)
Unreinforced
Flame Retardant
UL94 V-0**



The RTP 300 series of flame retardant materials offer dimensional stability, rigidity, heat resistance and ignition resistance. RTP 300 FR possesses a UL94 5V-A certification.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.22	1.22	D 792
Melt Flow Rate @ 300 °C, / 1.2 kg	10.00 - 12.00 g/10 min	10.00 - 12.00 g/10 min	D 1238
Molding Shrinkage 1/8 in (3.2 mm) section	0.0050 - 0.0080 in/in	0.50 - 0.80 %	D 955
Water Absorption, 24 hrs @ 23°C	0.150 %	0.150 %	D 570

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	12.0 ft-lbs/in	641 J/m	D 256
unnotched 1/8 in (3.2 mm) section	No Break	No Break	D 4812
Tensile Strength	9100 psi	63 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.33 x 10 ⁶ psi	2275 MPa	D 638
Flexural Strength	14000 psi	97 MPa	D 790
Flexural Modulus	0.35 x 10 ⁶ psi	2413 MPa	D 790
Hardness Rockwell, R	118	118	D 785

ELECTRICAL

Dielectric Constant, 1 MHz, Dry	3.0	3.0	D 150
Dissipation Factor, 1 MHz, Dry	0.0100	0.0100	D 150
Volume Resistivity	> 1E16 ohm.cm	> 1E16 ohm.cm	D 257

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	270 °F	132 °C	D 648
@ 66 psi (455 kPa)	280 °F	138 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
Flammability	5VA @ 1/8 in	5VA @ 3.0 mm	UL94
Limiting Oxygen Index	35.0 %	35.00 %	D 2863

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	300 °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.