



## Product Data Sheet & General Processing Conditions

### RTP 301 FR UV Polycarbonate (PC) Glass Fiber Flame Retardant Non-PBBO/E



The RTP series of flame retardant, glass fiber reinforced polycarbonate materials offer dimensional stability with improved heat distortion and ignition resistance performance over the base resin. RTP 301 FR UV also carries a UL F1 rating for outdoor suitability to ensure good maintenance of these properties in outdoor applications.

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

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	10 %	10 %	
Specific Gravity	1.26	1.26	D 792
Melt Flow Rate			
@ 300 °C, / 1.2 kg	5.00 - 15.00 g/10 min	5.00 - 15.00 g/10 min	D 1238
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0030 - 0.0050 in/in	0.30 - 0.50 %	D 955
Water Absorption, 24 hrs @ 23°C	0.100 %	0.100 %	D 570

#### MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	5.0 ft-lbs/in	267 J/m	D 256
unnotched 1/8 in (3.2 mm) section	No Break	No Break	D 4812
Tensile Strength	8400 psi	58 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.55 x 10 <sup>6</sup> psi	3792 MPa	D 638
Flexural Strength	14500 psi	100 MPa	D 790
Flexural Modulus	0.50 x 10 <sup>6</sup> psi	3448 MPa	D 790
Hardness			
Rockwell, R	118	118	D 785

#### ELECTRICAL

Volume Resistivity	> 1E16 ohm.cm	> 1E16 ohm.cm	D 257
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#### THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	285 °F	141 °C	D 648
@ 66 psi (455 kPa)	295 °F	146 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
Flammability	5VB @ 1/8 in	5VB @ 3.0 mm	UL94
Glow Wire Flammability Index	960 °C @ 1/8 in	960 °C @ 3.0 mm	IEC 60695-2-12

#### 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

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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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