



**Product Data Sheet &
General Processing Conditions**

**RTP 1003 FR A
Polybutylene Terephthalate (PBT)
Glass Fiber
Flame Retardant
UL94 V-0**



RTP 1001 - 1005 FRA are a series of glass fiber reinforced, flame retardant PBT compounds. All are UL94 V-0 certified down to the 1/32" (0.8mm) thickness. These materials exhibit easy flow, excellent physical properties and good processing characteristics.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	20 %	20 %	
Specific Gravity	1.56	1.56	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0040 - 0.0060 in/in	0.40 - 0.60 %	D 955
Water Absorption, 24 hrs @ 23°C	0.070 %	0.070 %	D 570

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	9.0 ft-lbs/in	481 J/m	D 4812
Tensile Strength	16000 psi	110 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	25000 psi	172 MPa	D 790
Flexural Modulus	1.00 x 10 ⁶ psi	6895 MPa	D 790
Hardness			
Rockwell, R	118	118	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	500 VPM	19.7 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.5	3.5	D 150
Dissipation Factor, 1 MHz, Dry	0.0200	0.0200	D 150
Volume Resistivity	> 1E16 ohm.cm	> 1E16 ohm.cm	D 257

THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	375 °F	191 °C	D 648
@ 66 psi (455 kPa)	410 °F	210 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/32 in	V-0 @ 0.8 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	460 - 520 °F	238 - 271 °C
Mold Temperature	175 - 225 °F	79 - 107 °C

Drying	@ 250 °F	4 hrs @ 121 °C
Moisture Content	0.03 %	0.03 %
Dew Point	-20 °F	-29 °C

PROCESSING NOTES

Desiccant Type Dryer Required.