



**Product Data Sheet &
General Processing Conditions**

**RTP 204 GB FR
Nylon 6/6 (PA)
Glass Bead
Flame Retardant
UL94 V-0**



RTP 204 GB FR is a flame retardant, nylon 6.6 containing 25 glass beads. It is characterized by excellent moldability, warp resistance, thermal stability, and is non-corrosive.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	25 %	25 %	
Specific Gravity	1.61	1.61	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0110 - 0.0160 in/in	1.10 - 1.60 %	D 955
Water Absorption, 24 hrs @ 23°C	0.700 %	0.700 %	D 570

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	0.7 ft-lbs/in	37 J/m	D 256
unnotched 1/8 in (3.2 mm) section	6.0 ft-lbs/in	320 J/m	D 4812
Tensile Strength	10000 psi	69 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	0.70 x 10 ⁶ psi	4826 MPa	D 638
Flexural Strength	17000 psi	117 MPa	D 790
Flexural Modulus	0.70 x 10 ⁶ psi	4826 MPa	D 790
Hardness Rockwell, R	118	118	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	475 VPM	18.7 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	4.2	4.2	D 150
Dissipation Factor, 1 MHz, Dry	0.0150	0.0150	D 150
Volume Resistivity	> 1E14 ohm.cm	> 1E14 ohm.cm	D 257

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	360 °F	182 °C	D 648
@ 66 psi (455 kPa)	490 °F	254 °C	D 648
Ignition Resistance* Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
Limiting Oxygen Index	33.0 %	33.00 %	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 - 18000 psi	69 - 124 MPa
Melt Temperature	530 - 570 °F	277 - 299 °C

Mold Temperature	150 - 225 °F	66 - 107 °C
Drying	4 hrs @ 175 °F	4 hrs @ 79 °C
Moisture Content	0.20 %	0.20 %
Dew Point	0 °F	-18 °C

PROCESSING NOTES

Desiccant Type Dryer Required.