Product Data Sheet &
General Processing Conditions

RTP 204 FR UV
Nylon 6/6 (PA)
Glass Fiber
Flame Retardant
UV Stabilized

The RTP series of flame retardant, glass fiber reinforced nylon materials are designed to provide the optimal balance of strength, electrical and ignition resistance properties while exhibiting excellent processing characteristics. RTP 204 FR UV also carries UL's 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	25 %	25 %	
Specific Gravity	1.64	1.64	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0020 - 0.0030 in/in	0.20 - 0.30 %	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	1.7 ft-lbs/in	91 J/m	D 256
unnotched 1/8 in (3.2 mm) section	15.0 ft-lbs/in	801 J/m	D 4812
Tensile Strength	20000 psi	138 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	1.50 x 10^6 psi	10342 MPa	D 638
Flexural Strength	30000 psi	207 MPa	D 790
Flexural Modulus	1.40 x 10^6 psi	9653 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	3.8	3.8	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)	445 °F	229 °C	D 648
@ 66 psi (455 kPa)	475 °F	246 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
Flammability	5VA @ 1/16 in	5VA @ 1.5 mm	UL94
Limiting Oxygen Index	34.0 %	34.00 %	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.