Product Data Sheet &
General Processing Conditions

RTP 205 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 205 FR UV includes a UV stabilizer package 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	30 %	30 %	
Specific Gravity	1.66	1.66	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0015 - 0.0030 in/in	0.15 - 0.30 %	D 955
Water Absorption, 24 hrs @ 23°C	0.600 %	0.600 %	D 570
MECHANICAL			
Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	2.0 ft-lbs/in	107 J/m	D 256
unnotched 1/8 in (3.2 mm) section	16.0 ft-lbs/in	854 J/m	D 4812
Tensile Strength	21000 psi	145 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	1.65 x 10^6 psi	11377 MPa	D 638
Flexural Strength	33000 psi	228 MPa	D 790
Flexural Modulus	1.55 x 10^6 psi	10687 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)	450 °F	232 °C	D 648
@ 66 psi (455 kPa)	480 °F	249 °C	D 648
Ignition Resistance*			
Flammability**	V-0 @ 1/32 in	V-0 @ 0.8 mm	D 3801
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.
** Values per RTP Company testing.

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.