



Product Data Sheet & General Processing Conditions

RTP 207 FR Nylon 6/6 (PA) Glass Fiber Flame Retardant

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.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	40 %	40 %	
Specific Gravity	1.72	1.72	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0010 - 0.0020 in/in	0.10 - 0.20 %	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	2.2 ft-lbs/in	117 J/m	D 256
unnotched 1/8 in (3.2 mm) section	16.0 ft-lbs/in	854 J/m	D 4812
Tensile Strength	25000 psi	172 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	2.00 x 10 ⁶ psi	13790 MPa	D 638
Flexural Strength	38000 psi	262 MPa	D 790
Flexural Modulus	1.90 x 10 ⁶ psi	13100 MPa	D 790
Hardness			
Rockwell, R	120	120	D 785

ELECTRICAL

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
Flammability**	5VA @ 1/8 in	5VA @ 3.0 mm	D 5048
Limiting Oxygen Index**	36.0 %	36.00 %	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