



**Product Data Sheet &  
General Processing Conditions**

**RTP 205 A FR  
Nylon 6 (PA)  
Glass Fiber  
Flame Retardant**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	30 %	30 %	
Specific Gravity	1.65	1.65	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	1.200 %	1.200 %	D 570

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	2.5 ft-lbs/in	133 J/m	D 256
unnotched 1/8 in (3.2 mm) section	18.0 ft-lbs/in	961 J/m	D 4812
Tensile Strength	22500 psi	155 MPa	D 638
Tensile Elongation	2.8 %	2.8 %	D 638
Tensile Modulus	1.80 x 10 <sup>6</sup> psi	12411 MPa	D 638
Flexural Strength	35000 psi	241 MPa	D 790
Flexural Modulus	1.50 x 10 <sup>6</sup> psi	10342 MPa	D 790
Hardness Rockwell, R	119	119	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	0.0130	0.0130	D 150
Volume Resistivity	> 1E14 ohm.cm	> 1E14 ohm.cm	D 257

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	390 °F	199 °C	D 648
@ 66 psi (455 kPa)	420 °F	216 °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

**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**

	<b>English</b>	<b>SI Metric</b>
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	470 - 535 °F	243 - 279 °C
Mold Temperature	130 - 200 °F	54 - 93 °C
Drying	2 hrs @ 180 °F	2 hrs @ 82 °C
Moisture Content	0.20 %	0.20 %
Dew Point	0 °F	-18 °C