




**Product Data Sheet &
General Processing Conditions**

**RTP 205 HB
Nylon 6/6 (PA)
Glass Fiber
UL94 HB**


Glass fiber reinforced nylon 6.6 offers significant improvements in strength, moduli and heat distortion temperature over the base resin. The HB series are UL94 HB certified materials.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	30 %	30 %	
Specific Gravity	1.36	1.36	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	1.5 ft-lbs/in	80 J/m	D 256
unnotched 1/8 in (3.2 mm) section	13.0 ft-lbs/in	694 J/m	D 4812
Tensile Strength	23000 psi	159 MPa	D 638
Tensile Elongation	3.0 - 5.0 %	3.0 - 5.0 %	D 638
Tensile Modulus	1.35 x 10 ⁶ psi	9308 MPa	D 638
Flexural Strength	35000 psi	241 MPa	D 790
Flexural Modulus	1.22 x 10 ⁶ psi	8412 MPa	D 790
Hardness Rockwell, R	120	120	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	500 VPM	19.7 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.8	3.8	D 150
Dissipation Factor, 1 MHz, Dry	0.0160	0.0160	D 150
Volume Resistivity	> 1E14 ohm.cm	> 1E14 ohm.cm	D 257

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	480 °F	249 °C	D 648
@ 66 psi (455 kPa)	500 °F	260 °C	D 648
Ignition Resistance* Flammability	HB @ 1/16 in	HB @ 1.5 mm	UL94
Limiting Oxygen Index	28.0 %	28.00 %	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.