



Product Data Sheet & General Processing Conditions

RTP 200 FR
Nylon 6/6 (PA)
Unreinforced
Flame Retardant
UL94 V-0



RTP 200 FR is a flame retardant, unreinforced nylon material possessing UL94 V-0 certification, as well as a complete range of UL94 electrical ratings and RTI assignment required for many electronics applications.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.36	1.36	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0110 - 0.0170 in/in	1.10 - 1.70 %	D 955
Water Absorption, 24 hrs @ 23°C	0.900 %	0.900 %	D 570

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	0.7 ft-lbs/in	37 J/m	D 256
unnotched 1/8 in (3.2 mm) section	10.0 ft-lbs/in	534 J/m	D 4812
Tensile Strength	10000 psi	69 MPa	D 638
Tensile Elongation	4.0 - 6.0 %	4.0 - 6.0 %	D 638
Tensile Modulus	0.55 x 10 ⁶ psi	3792 MPa	D 638
Flexural Strength	16500 psi	114 MPa	D 790
Flexural Modulus	0.50 x 10 ⁶ psi	3448 MPa	D 790
Hardness			
Rockwell, R	115	115	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	500 VPM	19.7 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.7	3.7	D 150
Dissipation Factor, 1 MHz, Dry	0.0200	0.0200	D 150
Volume Resistivity	> 1E15 ohm.cm	> 1E15 ohm.cm	D 257

THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	165 °F	74 °C	D 648
@ 66 psi (455 kPa)	410 °F	210 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/32 in	V-0 @ 0.8 mm	UL94
Limiting Oxygen Index	33.0 %	33.00 %	D 2863
Glow Wire Ignitability Temperature	775 °C @ 1/8 in	775 °C @ 3.0 mm	IEC 60695-2-13
Glow Wire Flammability Index	960 °C @ 1/8 in	960 °C @ 3.0 mm	IEC 60695-2-12

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.

29 Jun 2018 RDW

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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