



**Product Data Sheet &  
General Processing Conditions**

**RTP 299 X 85188 C  
Nylon 6/6 (PA)  
Thermally Conductive  
Electrically Conductive  
ESD Protection  
UV Stabilized**

Preliminary Data Sheet

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Specific Gravity	1.52	1.52	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0060 in/in	0.60 %	D 955

**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	5.0 ft-lbs/in	267 J/m	D 4812
Tensile Strength	11000 psi	76 MPa	D 638
Tensile Elongation	1.2 %	1.2 %	D 638
Tensile Modulus	1.60 x 10 <sup>6</sup> psi	11032 MPa	D 638
Flexural Strength	19500 psi	134 MPa	D 790
Flexural Modulus	1.60 x 10 <sup>6</sup> psi	11032 MPa	D 790

**ELECTRICAL**

Volume Resistivity	< 1E4 ohm.cm	< 1E4 ohm.cm	D 257
Surface Resistivity	< 1E8 ohm/sq	< 1E8 ohm/sq	D 257
Surface Resistance	< 1E7 ohm	< 1E7 ohm	ESD STM11.11
Static Decay MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 2.00 s	< 2.00 s	FTMS101C 4046.1

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	450 °F	232 °C	D 648
Ignition Resistance* Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635
Thermal Conductivity Through-plane	10.76 (BTU.in)/(hr.ft <sup>2</sup> .°F)	1.55 W/(m.K)	E 1530
In-plane	34.72 (BTU.in)/(hr.ft <sup>2</sup> .°F)	5.00 W/(m.K)	E 1461-92

**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

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Desiccant Type Dryer Required.

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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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