



**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

PERMANENCE	English	SI Metric	ASTM TEST
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 ⁶ psi	11032 MPa	D 638
Flexural Strength	19500 psi	134 MPa	D 790
Flexural Modulus	1.60 x 10 ⁶ 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 ² .°F)	1.55 W/(m.K)	E 1530
In-plane	34.72 (BTU.in)/(hr.ft ² .°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
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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.