



## Product Data Sheet & General Processing Conditions

### RTP 300 TC-C-20 Polycarbonate (PC) Thermally Conductive Electrically Conductive

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

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.53	1.53	D 792
<b>MECHANICAL</b>			
Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	0.5 ft-lbs/in	27 J/m	D 256
unnotched 1/8 in (3.2 mm) section	1.8 ft-lbs/in	96 J/m	D 4812
Tensile Strength	6000 psi	41 MPa	D 638
Tensile Elongation	< 1.0 %	< 1.0 %	D 638
Tensile Modulus	1.00 x 10 <sup>6</sup> psi	6895 MPa	D 638
Flexural Strength	9600 psi	66 MPa	D 790
Flexural Modulus	1.00 x 10 <sup>6</sup> psi	6895 MPa	D 790
<b>ELECTRICAL</b>			
Volume Resistivity	< 1E2 ohm.cm	< 1E2 ohm.cm	D 257
Surface Resistivity	< 1E4 ohm/sq	< 1E4 ohm/sq	D 257
<b>THERMAL</b>			
Deflection Temperature @ 264 psi (1820 kPa)	265 °F	129 °C	D 648
Thermal Conductivity			
Through-plane	9.00 (BTU.in)/(hr.ft <sup>2</sup> .°F)	1.30 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.

#### GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 18000 psi	69 - 124 MPa
Melt Temperature	550 - 610 °F	288 - 321 °C
Mold Temperature	150 - 225 °F	66 - 107 °C
Drying	4 hrs @ 250 °F	4 hrs @ 121 °C
Moisture Content	0.10 %	0.10 %
Dew Point	< -30 °F	< -34 °C

#### PROCESSING NOTES

Desiccant Type Dryer Required.

10 Jan 2013 MAB

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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