



## Product Data Sheet & General Processing Conditions

### PermaStat® 100 FR Polypropylene (PP) Flame Retardant Permanently Anti-static ESD Protection

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

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.23	1.23	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0100 - 0.0150 in/in	1.00 - 1.50 %	D 955

#### MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	No Break	No Break	D 4812
Tensile Strength	3300 psi	23 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.15 x 10 <sup>6</sup> psi	1034 MPa	D 638
Flexural Strength	6000 psi	41 MPa	D 790
Flexural Modulus	0.18 x 10 <sup>6</sup> psi	1241 MPa	D 790

#### ELECTRICAL

Volume Resistivity	1.0e9 - 9.9e10 ohm.cm	1.0e9 - 9.9e10 ohm.cm	D 257
Surface Resistivity	1.0e10 - 9.9e11 ohm/sq	1.0e10 - 9.9e11 ohm/sq	D 257
Surface Resistance	1.0e9 - 9.9e10 ohm	1.0e9 - 9.9e10 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

Ignition Resistance* Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
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#### 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	7000 - 11000 psi	48 - 76 MPa
Melt Temperature	340 - 400 °F	171 - 204 °C
Mold Temperature	90 - 150 °F	32 - 66 °C
Drying	2 hrs @ 175 °F	2 hrs @ 79 °C
Moisture Content	0.10 %	0.10 %

#### PROCESSING NOTES

Do not exceed 520 °F (270 °C) melt temperature.

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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