



**Product Data Sheet &  
General Processing Conditions**

**PermaStat® 400  
Polystyrene (PS)  
ESD Protection  
Permanently Anti-static**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Specific Gravity	1.05	1.05	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0060 - 0.0080 in/in	0.60 - 0.80 %	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	4.0 ft-lbs/in	214 J/m	D 4812
Tensile Strength	3000 psi	21 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.25 x 10 <sup>6</sup> psi	1724 MPa	D 638
Flexural Strength	6000 psi	41 MPa	D 790
Flexural Modulus	0.25 x 10 <sup>6</sup> psi	1724 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			ESD STM11.11
MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 2.00 s	< 2.00 s	FTMS101C 4046.1

**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**

	<b>English</b>	<b>SI Metric</b>
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	380 - 450 °F	193 - 232 °C
Mold Temperature	100 - 150 °F	38 - 66 °C
Drying	2 hrs @ 180 °F	2 hrs @ 82 °C

**PROCESSING NOTES**

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