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Product Data Sheet & General Processing Conditions

**PermaStat® 1800 Clear
Acrylic (PMMA)
Permanently Anti-static
ESD Protection
Transparent Grade**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.15	1.15	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0050 - 0.0070 in/in	0.50 - 0.70 %	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	15.0 ft-lbs/in	801 J/m	D 4812
Tensile Strength	5500 psi	38 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.20 x 10 ⁶ psi	1379 MPa	D 638
Flexural Strength	8500 psi	59 MPa	D 790
Flexural Modulus	0.25 x 10 ⁶ psi	1724 MPa	D 790

ELECTRICAL

Volume Resistivity	1E+09 - 9.9E+10 ohm.cm	1E+09 - 9.9E+10 ohm.cm	D 257
Surface Resistivity	1E+10 - 9.9E+11 ohm/sq	1E+10 - 9.9E+11 ohm/sq	D 257
Surface Resistance	1E+09 - 9.9E+10 ohm	1E+09 - 9.9E+10 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

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	415 - 470 °F	213 - 243 °C
Mold Temperature	100 - 150 °F	38 - 66 °C
Drying	4 hrs @ 200 °F	4 hrs @ 93 °C
Moisture Content	0.02 %	0.02 %
Dew Point	0 °F	-18 °C

PROCESSING NOTES

Do not exceed 520 °F (270 °C) melt temperature.
Desiccant Type Dryer Required.