



Product Data Sheet & General Processing Conditions

PermaStat® 600 Acrylonitrile Butadiene Styrene (ABS) ESD Protection Permanently Anti-static

This compound has been formulated to meet the <1.0E11 ohm at 30% RH requirement of IEC 60079-0 7.4.2 and the ATEX Directive.

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.06	1.06	D 792
Melt Flow Rate			
@ 200 °C, / 5.0 kg	2.00 - 4.00 g/10 min	2.00 - 4.00 g/10 min	D 1238
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	4.0 ft-lbs/in	214 J/m	D 256
unnotched 1/8 in (3.2 mm) section	No Break	No Break	D 4812
Tensile Strength	6000 psi	41 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.28 x 10 ⁶ psi	1931 MPa	D 638
Flexural Strength	10000 psi	69 MPa	D 790
Flexural Modulus	0.31 x 10 ⁶ psi	2137 MPa	D 790

ELECTRICAL

Volume Resistivity	1E9 - 1E11 ohm.cm	1E9 - 1E11 ohm.cm	D 257
Surface Resistivity	1E10 - 1E12 ohm/sq	1E10 - 1E12 ohm/sq	D 257
Surface Resistance	1E9 - 1E11 ohm	1E9 - 1E11 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)	170 °F	77 °C	D 648
Ignition Resistance*			
Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635

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	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	390 - 460 °F	199 - 238 °C
Drying	2 hrs @ 180 °F	2 hrs @ 82 °C
Moisture Content	0.10 %	0.10 %
Dew Point	0 °F	-18 °C

PROCESSING NOTES

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

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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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