



Product Data Sheet & General Processing Conditions

ESD C 4580 Aliphatic Polyketone (PK) ESD Protection Electrically Conductive Carbon Fiber

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	15 %	15 %	
Specific Gravity	1.29	1.29	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 - 0.0020 in/in	0.10 - 0.20 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.8 ft-lbs/in	93 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	19200 psi	132 MPa	D 638
Tensile Elongation	2.0 - 4.0 %	2.0 - 4.0 %	D 638
Tensile Modulus	1.15 x 10 ⁶ psi	7929 MPa	D 638
Flexural Strength	31500 psi	217 MPa	D 790
Flexural Modulus	1.26 x 10 ⁶ psi	8688 MPa	D 790

ELECTRICAL

Volume Resistivity	< 1E3 ohm.cm	< 1E3 ohm.cm	D 257
Surface Resistivity	< 1E5 ohm/sq	< 1E5 ohm/sq	D 257

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	400 °F	204 °C	D 648
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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.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	450 - 520 °F	232 - 271 °C
Mold Temperature	125 - 250 °F	52 - 121 °C
Drying	4 hrs @ 225 °F	4 hrs @ 107 °C
Moisture Content	< 0.05 %	< 0.05 %
Dew Point	< -22 °F	< -30 °C

PROCESSING NOTES

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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