



**Product Data Sheet &
General Processing Conditions**

**ESD C 1080 TFE 15
Polybutylene Terephthalate (PBT)
Carbon Fiber
Electrically Conductive
ESD Protection
PTFE Lubricated**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.44	1.44	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0020 - 0.0040 in/in	0.20 - 0.40 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.3 ft-lbs/in	69 J/m	D 256
unnotched 1/8 in (3.2 mm) section	8.0 ft-lbs/in	427 J/m	D 4812
Tensile Strength	17000 psi	117 MPa	D 638
Tensile Elongation	1.0 - 3.0 %	1.0 - 3.0 %	D 638
Tensile Modulus	1.60 x 10 ⁶ psi	11032 MPa	D 638
Flexural Strength	27000 psi	186 MPa	D 790
Flexural Modulus	1.50 x 10 ⁶ psi	10342 MPa	D 790

ELECTRICAL

Volume Resistivity	< 1E3 ohm.cm	< 1E3 ohm.cm	D 257
Surface Resistivity	< 1E6 ohm/sq	< 1E6 ohm/sq	D 257
Surface Resistance	< 1E5 ohm	< 1E5 ohm	ESD STM11.11
Static Decay	< 2.00 s	< 2.00 s	FTMS101C 4046.1

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	340 °F	171 °C	D 648
@ 66 psi (455 kPa)	360 °F	182 °C	D 648

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	460 - 520 °F	238 - 271 °C
Mold Temperature	175 - 225 °F	79 - 107 °C
Drying	4 hrs @ 250 °F	4 hrs @ 121 °C
Moisture Content	0.03 %	0.03 %
Dew Point	-20 °F	-29 °C

PROCESSING NOTES

Desiccant Type Dryer Required.