

# HYDEL® PEI-7 ESD Ultem®

Hydel® PEI-7 ESD Ultem® is a static dissipative high temperature thermoplastic product containing graphitic **Fibril™** nanotubes. Unlike conventional carbon products, this technology allows for superior dimensional stability after machining, consistent electrical properties, excellent surface quality, and minimal sloughing. This product possesses outstanding toughness and excellent thermal stability. Hydel® PEI-7 is available in rod, slab, tubular bar, and profiles.

Property	Method	Value*
Specific Gravity	ASTM D 792	1.27
Water Absorption, 24 hrs	ASTM D 570	0.25
Rockwell Hardness	ASTM D 785	123 R
Ultimate Tensile Strength	ASTM D 638	9,400 psi
Tensile Elongation @ Break	ASTM D 638	4 %
Tensile Modulus	ASTM D 638	400,000 psi
Compressive Strength	ASTM D 695	16,200 psi
Flexural Strength	ASTM D 790	16,200 psi
Flexural Modulus	ASTM D 790	400,000 psi
Notched Izod Impact Strength	ASTM D 256	1.4 ft-lb/in
Deflection temperature @ 264 psi	ASTM D 648	390°F
Max Continuous Use Temperature	-	340°F
Coefficient of Linear Thermal Expansion (-65°F to 350°F)	ASTM E 831	2.9 x 10 <sup>-5</sup> in/in/°F
Surface Resistance @ 10 V Surface Resistance @ 100 V	EOS/ESD S11.11	10 <sup>6</sup> to 10 <sup>10</sup> ohms/sq 10 <sup>6</sup> to 10 <sup>8</sup> ohms/sq
Volume Resistance @ 10 V Volume Resistance @ 100 V	ESD-STM 11.12	10 <sup>8</sup> to 10 <sup>10</sup> ohm-cm 10 <sup>6</sup> to 10 <sup>8</sup> ohm-cm
Static Decay	FTMS-101C Method 4046	0.004 sec
Residual Voltage	-	0.00 V
Flammability Rating	UL 94	V-0

\*Typical physical property data generated from test specimens machined from extruded product.

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