

Technical data sheet

SUSTAPEI (Polyetherimide - ULTEM™ 1000)

Product characteristics

- Maintains stiffness even at high temperatures
- Very low smoke development
- Good resistance to high energy radiation

Typical field of application

- Electrical industry
- Aviation industry

Physical Properties	tested method	unit	value
Specific Gravity	D792	g/cm ³	1.27
Water Absorption 24 hours	D570	%	0.25
Water Absorption Saturation	D570	%	1.25
Dissipation Factor	D150	1 MHz	0.001
Mechanical Properties	tested method	unit	value
Hardness	D785	Shore D	D86
Rockwell Hardness	D785	M	M114
Rockwell Hardness	D785	R	R123
Tensile Strength at yield 73 °F	D638	psi	16,700
Tensile Modulus	D638	psi	480,000
Elongation at Break	D638	%	80
Flexural Strength	D790	psi	20,000
Flexural Modulus	D790	psi	500,000
Compressive Strength	D695	psi	22,000
Shear Strength	D732	psi	15,000
Izod Impact, Notched	D256	ft-lb/in	0.6
Coefficient of Friction, Dynamic	-	-	0.2
Thermal Properties	tested method	unit	value
CTE, linear	D696	in/in/°F	3.1x10 ⁻⁵
Melting Point	D3418	°F	460
Continuous Use	-	°F	340
Thermal Conductivity	-	in/hr/ft ² /F°	1
Deflection Temperature at 1.8Mpa (66psi)	D648	°F	405
Deflection Temperature at 1.8Mpa (264psi)	D648	°F	395
Flammability, UL94	-	1/8 inch	V-0
Electrical Properties	tested method	unit	value
Dielectric constant	D150	-	3.2
Surface resistivity	D257	Ohm/cm	10 ¹⁶
Dielectric strength	D149	V/mil	830
Compliance Properties	tested method	unit	value
FDA	-	-	Yes
USDA	-	-	Yes

The data stated above are average values ascertained by statistical tests on a regular basis. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.