

Technical Data Sheet

SustaPEI - ASTM

PEI

Typical characteristics

- High stiffness even at high temperatures
- Low smoke development
- Good resistance against high energy radiation

Typical industries

- Aerospace
- Electrical Industry
- Healthcare
- Semiconductor Wafer Handling
- Semiconductor High and low temperature
- Semiconductor Back-End applications

	Test method	Unit	Guideline value
General properties			
Density	ASTM D792	g / cm ³	1.27
Water Absorption 24 hours	ASTM D570	%	0.25
Dissipation Factor	ASTM D150	1MHz	0.001
Water Absorption Saturation	ASTM D570	%	1.25
Mechanical properties			
Hardness	ASTM D2240	Shore D	86
Tensile Strength at yield 73°F	ASTM D638	psi	16700
Tensile Modulus	ASTM D638	psi	480000
Elongation at Break	ASTM D638	%	60*
Flexural Strength	ASTM D790	psi	20000
Flexural Modulus	ASTM D790	psi	500000
Compressive Strength	ASTM D695	psi	22000
Rockwell Hardness	ASTM D785		114
Rockwell Hardness	ASTM D785	R	123
Shear Strength	ASTM D732	psi	15000
Izod Impact, Notched	ASTM D256	ft-lb/in	0.6
Coefficient of Friction, Dynamic			0.2

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	Test method	Unit	Guideline value
Thermal properties			
Thermal Conductivity		in/hr/ft ² /°F	1
Coefficient of Linear Thermal Expansion	ASTM D696	in/in/°F x10 ⁻⁵	3.1
Melting Point	ASTM D789	°F	460
Continuous Service Temperature, Air		°F	340
Deflection Temperature at 1.8Mpa (264psi)	ASTM D648	°F	395
Deflection Temperature at 1.8Mpa (66psi)	ASTM D648	°F	405
Flammability, UL94		1/8 inch	V-0
Electrical properties			
Dielectric constant	ASTM D150	1MHz	3.2
Dielectric strength	ASTM D149	V/mil	830
Surface resistivity	ASTM D257	Ω/cm	>10 ¹³
Compliance properties			
FDA			Yes
NSF			No
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.

*These are the typical value of the resin tested by Sabic, and results from semi-finished goods would have to be run and results could vary.

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