Technical Data Sheet

SustaPEI natural

PEI

Typical characteristics

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

Typical industries

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

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	1,27
Water absorption	DIN EN ISO 62	%	0,5
Flammability (Thickness 3 mm / 6 mm)	UL 94		V0 / V0
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	110
Elongation at break	DIN EN ISO 527	%	12
Tensile modulus of elasticity	DIN EN ISO 527	MPa	3100
Notched impact strength	DIN EN ISO 179	kJ / m^2	4
Shore hardness	DIN EN ISO 868	scale D	86
Thermal properties			
Thermal conductivity	DIN 52612-1	W / (m * K)	0,24
Thermal capacity	DIN 52612	kJ / (kg * K)	1,10
Coefficient of linear thermal expansion	DIN 53752	10^{-6} / K	45
Service temperature, long term	Average	°C	-50 ... 170
Service temperature, short term (max.)	Average	°C	210

	Test method	Unit	Guideline value
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	200
Electrical properties			
Dielectric constant	IEC 60250		3,2
Dielectric dissipation factor (50 Hz)	IEC 60250		0,0015
Volume resistivity	DIN EN 62631-3-1	Ω * cm	10^{15}
Surface resistivity	DIN EN 62631-3-2	Ω	10^{15}
Comparative tracking index	IEC 60112		150
Dielectric strength	IEC 60243	kV / mm	30