

Technical Data Sheet

Sustason® PES natural

PES

Typical characteristics

- Flame retardant
- Self-extinguishing
- Microwaveable
- Low smoke development
- Good resistance against high energy radiation
- Low radiation absorption in the microwave range
- High tensile strength
- High cold impact strength
- Good machinability
- good adhesive properties
- Good weldability
- High continuous service temperature
- Electrically insulating
- Good dielectric properties
- Good thermoformability
- Good dimensional stability

Typical industries

- Electronics
- Bakery and Confectionery
- Meat, Fish and Poultry Processing
- Beverage Industry
- Food Industry

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm ³	1,37
Water absorption	DIN EN ISO 62	%	0,7
Flammability (Thickness 3 mm / 6 mm)	UL 94		V0 / V0
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	90
Elongation at break	DIN EN ISO 527	%	15
Tensile modulus of elasticity	DIN EN ISO 527	MPa	2700
Notched impact strength	DIN EN ISO 179	kJ / m ²	7
Shore hardness	DIN EN ISO 868	scale D	85



	Test method	Unit	Guideline value
Thermal properties			
Melting temperature	ISO 11357-3	°C	-
Glass transition temperature	ISO 11357-3	°C	225
Thermal conductivity	DIN 52612-1	W / (m * K)	0,18
Thermal capacity	DIN 52612	kJ / (kg * K)	1,10
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	55
Service temperature, long term	Average	°C	-50 ... 180
Service temperature, short term (max.)	Average	°C	220
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	200
Electrical properties			
Dielectric constant	IEC 60250		3,9
Dielectric dissipation factor (50 Hz)	IEC 60250		0,002
Volume resistivity	DIN EN 62631-3-1	Ω * cm	10 ¹⁸
Surface resistivity	DIN EN 62631-3-2	Ω	10 ¹⁴
Comparative tracking index	IEC 60112		150
Dielectric strength	IEC 60243	kV / mm	25

