Technical Data Sheet

Sustason® PSU natural

PSU

Typical characteristics

- High rigidity
- Good dimensional stability
- High continuous service temperature
- Hydrolysis resistant
- Flame retardant
- Self-extinguishing
- Low smoke development
- Good resistance against high energy radiation
- High tensile strength
- High hardness
- Good machinability
- good adhesive properties
- Good weldability
- Low coefficient of thermal expansion
- Electrically insulating
- Low radiation absorption in the microwave range
- Good thermoformability

Typical industries

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

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	1,24
Water absorption	DIN EN ISO 62	%	0,2
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / V0
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	80
Elongation at break	DIN EN ISO 527	%	15
Tensile modulus of elasticity	DIN EN ISO 527	MPa	2600
Notched impact strength	DIN EN ISO 179	kJ / m^2	6

	Test method	Unit	Guideline value
Shore hardness	DIN EN ISO 868	scale D	85
Thermal properties			
Melting temperature	ISO 11357-3	°C	-
Glass transition temperature	ISO 11357-3	°C	190
Thermal conductivity	DIN 52612-1	W / (m * K)	0,26
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 ... 160
Service temperature, short term (max.)	Average	°C	180
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	175
Electrical properties			
Dielectric constant	IEC 60250		3,2
Dielectric dissipation factor (50 Hz)	IEC 60250		0,001
Volume resistivity	DIN EN 62631-3-1	Ω * cm	10^{15}
Surface resistivity	DIN EN 62631-3-2	Ω	10^{14}
Comparative tracking index	IEC 60112		125
Dielectric strength	IEC 60243	kV / mm	30