

Technical Data Sheet

Sustamid[®] 12 natural

PA 12

Typical characteristics

- Low moisture absorption
- Good stress cracking resistance
- Good impact strength
- Good noise absorption properties
- Vibration damping
- Good machinability
- good adhesive properties
- Good weldability
- Good dimensional stability

Typical industries

- Electronics
- Chemical storage tanks
- Mechanical Engineering Industry

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm ³	1,02
Water absorption	DIN EN ISO 62	%	0,8
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / HB
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	50
Elongation at break	DIN EN ISO 527	%	200
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1800
Notched impact strength	DIN EN ISO 179	kJ / m ²	20
Shore hardness	DIN EN ISO 868	scale D	78
Thermal properties			
Melting temperature	ISO 11357-3	°C	178
Thermal conductivity	DIN 52612-1	W / (m * K)	0,3
Thermal capacity	DIN 52612	kJ / (kg * K)	1,70
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	100
Service temperature, long term	Average	°C	-50 ... 80
Service temperature, short term (max.)	Average	°C	140



	Test method	Unit	Guideline value
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	50
Electrical properties			
Dielectric constant	IEC 60250		3,8
Dielectric dissipation factor (50 Hz)	IEC 60250		0,04
Volume resistivity	DIN EN 62631-3-1	$\Omega \cdot \text{cm}$	10^{15}
Surface resistivity	DIN EN 62631-3-2	Ω	10^{13}
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV / mm	26

