

Technical Data Sheet

Sustamid[®] 6 natural

PA 6

Typical characteristics

- Good toughness
- Good noise absorption properties
- Vibration damping
- High abrasion resistance
- High mechanical strength
- Good impact strength
- good adhesive properties
- Good weldability
- Good machinability
- Good sliding properties
- High absorption of moisture depending on temperature and humidity

Typical industries

- Bakery and Confectionery
- Meat, Fish and Poultry Processing
- Mechanical Engineering Industry
- Aerospace
- Food Industry

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm ³	1,14
Water absorption	DIN EN ISO 62	%	3,0
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / HB
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	80
Elongation at break	DIN EN ISO 527	%	50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	3200
Notched impact strength	DIN EN ISO 179	kJ / m ²	3
Shore hardness	DIN EN ISO 868	scale D	82
Thermal properties			
Melting temperature	ISO 11357-3	°C	220
Thermal conductivity	DIN 52612-1	W / (m * K)	0,23
Thermal capacity	DIN 52612	kJ / (kg * K)	1,70



	Test method	Unit	Guideline value
Coefficient of linear thermal expansion	DIN 53752	$10^{-6} / K$	90
Service temperature, long term	Average	°C	-40 ... 85
Service temperature, short term (max.)	Average	°C	160
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	75
Electrical properties			
Dielectric constant	IEC 60250		3,9
Dielectric dissipation factor (50 Hz)	IEC 60250		0,02
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	20

