Technical Data Sheet

Sustamid® 6G natural

PA 6 G

Typical characteristics

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

Typical industries

- Vehicle Construction
- Oil and Gas
- Subsea
- Conveyor Technology & Automation
- Bakery and Confectionery
- Pipelines
- Meat, Fish and Poultry Processing
- Mechanical Engineering Industry
- Building industry
- Topside
- Downhole
- Food Industry
- Wind Energy
- Tower and Nacelle

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	1,15
Water absorption	DIN EN ISO 62	%	2,5
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / HB
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	75
Elongation at break	DIN EN ISO 527	%	45
Tensile modulus of elasticity	DIN EN ISO 527	MPa	3400
Notched impact strength	DIN EN ISO 179	kJ / m^2	3
Shore hardness	DIN EN ISO 868	scale D	83
Thermal properties			
Melting temperature	ISO 11357-3	°C	216

	Test method	Unit	Guideline value
Thermal conductivity	DIN 52612-1	W / (m * K)	0,25
Thermal capacity	DIN 52612	kJ / (kg * K)	1,70
Coefficient of linear thermal expansion	DIN 53752	10^{-6} / K	80
Service temperature, long term	Average	°C	-40 ... 110
Service temperature, short term (max.)	Average	°C	170
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	95
Electrical properties			
Dielectric constant	IEC 60250		3,7
Dielectric dissipation factor (50 Hz)	IEC 60250		0,02
Volume resistivity	DIN EN 62631-3-1	Ω * 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