



Material data sheet

PA 66 ivory

Chemical Designation: Polyamide 66
DIN-abbreviation: PA 66
Colour / Fillers: ivory opaque
Density: 1,15 g/cm³

Data generated directly after machining
(standard climate Germany).

Main features

- high toughness
- electrically insulating
- high strength
- good weldable and bondable
- resistant to many oils, greases and fuels
- good wear properties
- good slide and wear properties

Target Industries

- mechanical engineering
- aircraft and aerospace technology
- electronics
- food technology
- automotive industry

Characteristics

mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	1 mm / min	3500	MPa	DIN EN ISO 527-2 1)	1) For tensile test: specimen type 1b 2) For flexural test: support span 64 mm, norm specimen. 3) Specimen 10 x 10 x 10 mm 4) Specimen 10 x 10 x 50 mm, modulus range between 0,5 and 1% compression. 5) For Charpy test: support span 64 mm, norm specimen. n. b. = not broken 6) Specimen in 4 mm thickness
Tensile strength	50 mm / min	85	MPa	DIN EN ISO 527-2	
Tensile strength at yield	50 mm / min	84	MPa	DIN EN ISO 527-2	
Elongation at yield	50 mm / min	7	%	DIN EN ISO 527-2	
Elongation at break	50 mm / min	70	%	DIN EN ISO 527-2	
Flexural strength	2 mm / min, 10 N	110	MPa	DIN EN ISO 178 2)	
Modulus of elasticity (flexural test)	2 mm / min, 10 N	3100	MPa	DIN EN ISO 178	
Compression strength	1% / 2% / 5% 5 mm / min, 10 N	20/35/81	MPa	EN ISO 604 3)	
Compression modulus	5 mm / min, 10 N	2700	MPa	EN ISO 604 4)	
Impact strength (Charpy)	max. 7,5 J	n. b.	kJ/m ²	DIN EN ISO 179-1eU 5)	
Notched impact strength (Charpy)	max. 7,5 J	5	kJ/m ²	DIN EN ISO 179-1eA	
Ball indentation hardness		175	MPa	ISO 2039-1 6)	





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thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		47	°C	DIN EN ISO 11357 1)	1) Found in public sources. 2) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		258	°C	DIN EN ISO 11357	
Service temperature	short term	170	°C		
Service temperature	long term	100	°C		
Thermal expansion (CLTE)	23-60 °C, long	11	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	23-100 °C, long	12	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
Specific heat		1.5	J/(g*K)	ISO 22007-4:2008	
Thermal conductivity		0.36	W/(K*m)	ISO 22007-4:2008	

electrical properties	parameter	value	unit	norm	comment
surface resistivity		10 ¹⁴	Ω	DIN IEC 60093	
volume resistivity		10 ¹⁴	Ω*cm	DIN IEC 60093	

other properties	parameter	value	unit	norm	comment
Water absorption	24 h / 96 h (23 °C)	0.2 / 0.4	%	DIN EN ISO 62 1)	1) Ø ca. 50 mm, h = 13 mm 2) (+) limited resistance 3) – poor resistance 4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Resistance to hot water/bases		(+)		- 2)	
Resistance to weathering		-		- 3)	
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10 4)	

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