

Chemical Designation

PA 66 (Polyamide 66)

Colour

ivory opaque

Density

1.4 g/cm³

Fillers

glass fibres

Data generated directly after machining
(standard climate Germany).

Main features

- very high stiffness
- resistant to many oils, greases and fuels
- good wear properties
- very high strength
- high dimensional stability
- good heat deflection temperature
- good weldable and bondable

Target Industries

- aircraft and aerospace technology
- mechanical engineering
- automotive industry

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength	50mm/min	103	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
Modulus of elasticity (tensile test)	1mm/min	5500	MPa	DIN EN ISO 527-2	1)
Elongation at yield (tensile test)	50mm/min	7	%	DIN EN ISO 527-2	
Elongation at break (tensile test)	50mm/min	11	%	DIN EN ISO 527-2	
Flexural strength		150	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)		5100	MPa	DIN EN ISO 178	
Impact strength (Charpy)		85	kJ/m ²	DIN EN ISO 179-1eU	
Notched impact strength (Charpy)		5	kJ/m ²	DIN EN ISO 179-1eA	
Shore hardness	D	84		DIN EN ISO 868	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Glass transition temperature		48	°C	DIN EN ISO 11357	1) (1) Found in public sources.
Melting temperature		254	°C	DIN EN ISO 11357	2) (2) Found in public sources.
Service temperature	short term	170	°C		Individual testing regarding application conditions is mandatory.
Service temperature	long term	110	°C		
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity	Silver electrode, 23°C, 12% r.h.	10 ¹⁴		DIN IEC 60093	(1) Due to moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
volume resistivity	Silver electrode, 23°C, 12% r.h.	10 ¹⁴		DIN IEC 60093	1)
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Resistance to hot water/ bases		(+)		-	1) (1) (+) limited resistance
Resistance to weathering		(+)			(2) 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.
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	2)

