

Chemical Designation

PA 66 (Polyamide 66)

Colour

natural

Density

1.35 g/cm³

Fillers

glass fibres

Main features

- good tensile strength
- good mechanical properties
- for injection moulding

Target Industries

- automotive industry
- mechanical engineering

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength		200	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		9500	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		3,5	%	DIN EN ISO 527-1	
Impact strength (Charpy)		70	kJ/m ²	DIN EN ISO 179-1eU	

<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Glass transition temperature		72	°C	-	1)
Melting temperature		260	°C	-	2)
Heat distortion temperature		254	°C	ISO-R 75 Method A	(3) literature value (4) literature value
Service temperature	long term	110	°C	-	3)
Service temperature	short term	170	°C	-	4)

<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity		10 ¹⁴	Ω	DIN EN 61340-2-3	
volume resistivity		10 ¹⁴	Ω*cm	-	

<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Water absorption		< 0,1	%	DIN EN ISO 62	1)
Molding shrinkage	longitudinal	0,6	%	DIN EN ISO 294-4	(1) 23 °C / 50 % relative humidity up to saturation
Molding shrinkage	transverse	1,3	%	DIN EN ISO 294-4	

<i>Processing parameter</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
processing temperatures		260 - 310	°C	-	
Mould temperature		90 - 150	°C	-	

→ This material can be processed as a thermoplastic taking the normal technical provisions into account. The above mentioned information refers exclusively to the injection moulding process.

→ Processing should be carried out as gently as possible, in order to maintain the maximum fibre length in the component. Back pressure and injection rate should be adjusted to the component geometry accordingly. The optimum processing temperature depends upon the respective geometry of the moulded part and can be different from machine to machine.

<i>Predrying</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Permissible residual moisture content		< 0,1	%	-	
Drying temperature		80	°C	-	
Drying time		4 - 8	h	-	

