

## Chemical Designation

PA 66 (Polyamide 66)

## Colour

blue

## Density

1.29 g/cm<sup>3</sup>

## Fillers

detectable filler

former material REZ-RS-4066

## Main features

- detectable via metal detector
- x-ray detectable
- Explanation of food contact according to FDA and EU 10/2011 on request
- high toughness
- good heat deflection temperature
- resistant to many oils, greases and fuels
- for injection moulding

## Target Industries

- food technology

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		63	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		2800	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		20	%	DIN EN ISO 527-1	
Impact strength (Charpy)		120	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		5 / 72	°C	-	1)
Melting temperature		260	°C	-	2)
Service temperature	short term	170	°C	-	3)
Service temperature	long term	110	°C	-	4)

Electrical properties	parameter	value	unit	norm	comment
surface resistivity		10 <sup>12</sup>	Ω	DIN EN 61340-2-3	
volume resistivity		10 <sup>12</sup>	Ω*cm	DIN EN 61340-2-3	

Other properties	parameter	value	unit	norm	comment
Water absorption	23 °C / 50 % relative humidity up to saturation	2,3	%	DIN EN ISO 62	(1) metal detectable (2) x-ray detectable
Molding shrinkage	longitudinal	2,1	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	2,2	%	DIN EN ISO 294-4	
Detectability	4 x 4 x 4 mm	2,3	mm Al	-	1)
Detectability	4 x 4 x 4 mm	2,5	mm Al	-	2)

Processing parameter	parameter	value	unit	norm	comment
processing temperatures		270 - 310	°C	-	
Mould temperature		80 - 110	°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.

→ 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.

Predrying	parameter	value	unit	norm	comment
Permissible residual moisture content		< 0,1	%	-	
Drying temperature		80 - 120	°C	-	
Drying time		4 - 8	h	-	

