

TECACOMP PA66 ID blue 1014958 - Compounds

Chemical Designation

PA 66 (Polyamide 66)

Colour

blue

Density

1.29 g/cm³

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

Target Industries

- food technology

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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 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		5 / 72	°C	-	1) (1) moist / dry - literature value
Melting temperature		260	°C	-	2) (2) literature value
Service temperature	short term	170	°C	-	3) (3) literature value
Service temperature	long term	110	°C	-	4) (4) literature value
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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)
<i>Processing parameter</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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.

<i>Pre-drying</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 - 120	°C	-	
Drying time		4 - 8	h	-	

→ To achieve optimum mechanical properties, it is recommended to pre-dry the material with the above mentioned parameters.

→ Information on storage and shelf life: The granules must be stored in dry, normally tempered rooms and in closed containers. For moisture-sensitive materials, the granules must be sealed airtight. Protection against direct sunlight must be guaranteed. The granules are usually subject to the requirements of no shelf life limitation. Shelf Life may be limited by some additives.

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