

TECACOMP PA66 ID blue 1014971 - Compounds

Chemical Designation

PA 66 (Polyamide 66)

Colour

blue

Density

1.26 g/cm³

Fillers

detectable filler

former material REZ-RS-4087

Main features

- metal detectable
- x-ray detectable
- Explanation of food contact according to FDA and EU 10/2011 on request

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength		55	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		2400	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		24	%	DIN EN ISO 527-1	
Flexural strength		70	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)		2000	MPa	DIN EN ISO 178	
Bending strain		6	%	DIN EN ISO 178	
Impact strength (Charpy)		155	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
Melting temperature		260	°C	-	
Service temperature	short term	170	°C	-	
Service temperature	long term	110	°C	-	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Detectability	4 x 4 x 4 mm	2,4	mm Al	-	1) (1) metal detectable (2) x-ray detectable
Molding shrinkage	longitudinal	2,67	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	2,74	%	DIN EN ISO 294-4	
Detectability	4 x 4 x 4 mm	2,4	mm Al	-	2)
Melt flow index (MFI)	280 °C / 2,16 kg	6,0	g/10 min	DIN EN ISO 1133	
<i>Processing parameter</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Cylinder/processing temperature		260 - 310	°C	-	
Mould temperature		90 - 150	°C	-	
Material temperature		290 - 310	°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>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	-	

→ 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.

Our information and statements reflect to current state of our knowledge and shall inform about the products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our products are not defined for the use in medical or dental implants. Existing commercial patents have to be observed. The corresponding values and information are no minimum or maximum values, but guideline values that can be used primarily for comparison purposes for material selection. These values are within the normal tolerance range of product properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. Unless otherwise noted, these values were determined by tests on injection moulded samples, dry as moulded. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at ensingerplastics.com. Technical changes reserved.