

TECACOMP PA6 ID blue 1053686 - Compounds

Chemical Designation

PA 6 (Polyamide 6)

Colour

blue

Density

1.27 g/cm³

Fillers

detectable filler

Main features

- detectable via metal detector
- x-ray detectable
- Explanation of food contact according to FDA and EU 10/2011 on request
- high toughness
- 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		60	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		2700	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		20	%	DIN EN ISO 527-1	
Impact strength (Charpy)		158	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 / 60	°C	-	1) (1) moist / dry - literature value
Melting temperature		220	°C	-	2) (2) literature value
Service temperature	short term	150	°C	-	3) (3) literature value
Service temperature	long term	100	°C	-	4) (4) literature value
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Molding shrinkage	longitudinal	2,0	%	DIN EN ISO 294-4	(1) metal detectable
Molding shrinkage	transverse	2,0	%	DIN EN ISO 294-4	(2) x-ray detectable
Detectability	4 x 4 x 4 mm	2,3	mm Al	-	1)
Detectability	4 x 4 x 4 mm	2,4	mm Al	-	2)
<i>Processing parameter</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
processing temperatures		260 - 300	°C	-	
Mould temperature		70 - 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>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		3 - 6	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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