

TECACOMP PP ID blue 1052958 - Compounds

Chemical Designation

PP (Polypropylene)

Colour

blue

Density

1.21 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
- low water absorption
- good chemical resistance

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		16	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		1300	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		43	%	DIN EN ISO 527-1	
Impact strength (Charpy)		78	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		0	°C	-	1) (1) literature value
Melting temperature		165	°C	-	2) (2) literature value
Service temperature	short term	130	°C	-	3) (3) literature value
Service temperature	long term	90	°C	-	4) (4) literature value
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity		10 ¹³	Ω	DIN EN 61340-2-3	
volume resistivity		10 ¹¹	Ω*cm	DIN EN 61340-2-3	
<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	2,8	mm Al	-	1) (1) metal detectable
Detectability	4 x 4 x 4 mm	3,5	mm Al	-	2) (2) x-ray detectable
Molding shrinkage	longitudinal	1,9	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	1,7	%	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		200 - 260	°C	-	
Mould temperature		30 - 80	°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 - 100	°C	-	
Drying time		2 - 3	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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