

## TECACOMP PP ID blue 1014912 - Compounds

### Chemical Designation

PP (Polypropylene)

### Colour

blue

### Density

1.26 g/cm<sup>3</sup>

### Fillers

detectable filler

former material REZ-RS-3956

### Main features

- detectable via metal detector
- x-ray detectable
- Explanation of food contact according to FDA and EU 10/2011 on request
- low water absorption
- good chemical resistance

### Target Industries

- food technology

Mechanical properties	parameter	value	unit	norm	comment
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Tensile strength		26	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		1900	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		30	%	DIN EN ISO 527-1	
Impact strength (Charpy)		27	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
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Glass transition temperature		0	°C	-	1) (1) literature value
Melting temperature		165	°C	-	2) (2) literature value
Service temperature short term	short term	130	°C	-	3) (3) literature value
Service temperature long term	long term	90	°C	-	4) (4) literature value

Other properties	parameter	value	unit	norm	comment
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Detectability	4 x 4 x 4 mm	2,9	mm Al	-	1) (1) metal detectable
Detectability	4 x 4 x 4 mm	3,7	mm Al	-	2) (2) x-ray detectable
Water absorption	23 °C / 50 % relative humidity up to saturation	< 0,1	%	DIN EN ISO 62	
Molding shrinkage	longitudinal	1,4	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	1,5	%	DIN EN ISO 294-4	

Processing parameter	parameter	value	unit	norm	comment
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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.

Predrying	parameter	value	unit	norm	comment
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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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