

TECACOMP POM ID blue 1055303 - Compounds

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

blue

Density

1.6 g/cm³

Fillers

detectable filler

Main features

- metal detectable
- x-ray detectable
- Explanation of food contact according to FDA and EU 10/2011 on request
- good chemical resistance
- good slide and wear properties

Target Industries

- food processing

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		50	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		3200	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		26	%	DIN EN ISO 527-1	
Impact strength (Charpy)		81	kJ/m ²	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		-65	°C	-	1) (1) literature value
Melting temperature		166	°C	-	2) (2) literature value
Service temperature	long term	100	°C	-	3) (3) literature value
Service temperature	short term	140	°C	-	4) (4) literature value

Other properties	parameter	value	unit	norm	comment
Detectability	4 x 4 x 4 mm	2,5	mm Al	-	1) (1) metal detectable
Detectability	4 x 4 x 4 mm	2,8	mm Al	-	2) (2) x-ray detectable
Molding shrinkage	longitudinal	2,9	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	2,3	%	DIN EN ISO 294-4	

Processing parameter	parameter	value	unit	norm	comment
processing temperatures		180 - 225	°C	-	
Mould temperature		60 - 120	°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
Permissible residual moisture content		< 0,1	%	-	
Drying temperature		100 - 110	°C	-	
Drying time		3 - 4	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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