TECACOMP PPA TRM XS mod. black 1054920 - Compounds

Chemical Designation
PPA (Polyphtalamide)

Colour
black

Density
1.24 g/cm^3

Fillers
carbon fibres, graphite

Main features
- high stiffness
- high heat deflection temperature
- good slide and wear properties
- low moisture absorption
- high dimensional stability
- short cycle time
- partially biogenic (consists of 56% renewable raw materials)

Target Industries
- automotive industry
- mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		201	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		14700	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		2,4	%	DIN EN ISO 527-1	
Impact strength (Charpy)		43	kJ/m^2	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		90 - 120	°C	-	1)	(1) literature value (2) literature value (3) literature value (4) literature value
Melting temperature		315	°C	-	2)	
Heat distortion temperature		307	°C	ISO-R 75 Method A		
Service temperature	short term	250	°C	-	3)	
Service temperature	long term	150	°C	-	4)	

Processing parameter	parameter	value	unit	norm	comment
processing temperatures		300 - 340	°C	-	
Mould temperature		90 - 160	°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.
- Processing should be carried out as gently as possible, in order to maintain the maximum fibre length in the component. 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		0,05	%	-	
Drying temperature		110 - 130	°C	-	
Drying time		2 - 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.

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