TECACOMP® PA66 TC white 3924V - Compounds

Chemical Designation
PA 66 (Polyamide 66)

Colour
white

Density
1.51 g/cm^3

Fillers
glass fibres, ceramic

Main features
- high thermal conductivity
- very good electrical insulation

Target Industries
- electrical engineering
- LED lighting technology
- mechanical engineering
- automotive industry

The compound is in the phase of further development. The characteristic values of this product may change.

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	50 mm/min	13000	MPa	DIN EN ISO 527-1	
Tensile strength	50 mm/min	105	MPa	DIN EN ISO 527-1	
Elongation at break	50 mm/min	1,5	%	DIN EN ISO 527-1	
Impact strength (Charpy)	2,0 J	25	kJ/m^2	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		50	°C	DIN 53765	
Melting temperature		255	°C	DIN 53765	
Service temperature	short term	180	°C	-	
Service temperature	long term	120	°C	-	
Specific heat		1,09	J/(g*K)	DIN EN 821	
Thermal conductivity	longitudinal	3,5	W/(K*m)	DIN EN 821	
Thermal conductivity	transverse	1,5	W/(K*m)	DIN EN 821	
Thermal diffusivity	longitudinal	1,6	mm^2/s	DIN EN 821	
Thermal diffusivity	transverse	0,7	mm^2/s	DIN EN 821	

Electrical properties	parameter	value	unit	norm	comment
Specific surface resistance		5 x 10^{12}	Ω	DIN EN 61340-2-3	
Specific volume resistance		3,6 x 10^{11}	Ω*m	DIN EN 61340-2-3	

Other properties	parameter	value	unit	norm	comment
Molding shrinkage	in-plane	0,36	%	DIN EN ISO 294-4	
Molding shrinkage	through-plane	0,67	%	DIN EN ISO 294-4	
Melt flow index (MFI)	280°C / 5 kg	40	g/10 min	DIN EN ISO 1133	
MVR	280 °C / 5 kg	26,5	cm³/10 min	DIN EN ISO 1133	
Bulk density		0,79	g/cm^3	EN ISO 60	

Processing parameter	parameter	value	unit	norm	comment
Cylinder/processing temperature		260 - 295	°C	-	
Mould temperature		100 - 150	°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
Drying temperature		80	°C	-	
Drying time		4 - 5	h	-	

- In order to achieve optimum mechanical properties, pre-drying of the material is recommended with the parameters mentioned above.
- Granulate should preferably be stored in dry rooms at normal temperatures and be protected from direct sunlight.

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