

TECACOMP® PA66 TRM XS black 4074 - Compounds

Chemical Designation

PA 66 (Polyamide 66)

Colour

black

Density

1.31 g/cm³

Fillers

carbon fibres, solid lubricant

Main features

→ very good bearing and wear properties

Target Industries

→ automotive industry
→ mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	50 mm/min	18500	MPa	DIN EN ISO 527-1	
Tensile strength	50 mm/min	200	MPa	DIN EN ISO 527-1	
Elongation at break	50 mm/min	2,0	%	DIN EN ISO 527-1	
Impact strength (Charpy)		40	kJ/m ²	DIN EN ISO 179-1eU	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		5 / 72	°C	DIN 53765	1) (1) moist/dry
Melting temperature		260	°C	DIN 53765	
Heat distortion temperature		255	°C	ISO-R 75 Method A	
Deflection temperature		263	°C	ISO-R 75 Method B	
Service temperature	long term	110	°C	-	
Service temperature	short term	170	°C	-	
Other properties	parameter	value	unit	norm	comment
Molding shrinkage	longitudinal	0,36	%	DIN EN ISO 294-4	1) (1) in according to DIN EN ISO 294-4; test plate with the dimensions 70x70x3 mm
Molding shrinkage	transverse	1,00	%	DIN EN ISO 294-4	2) (2) in according to DIN EN ISO 294-4; test plate with the dimensions 70x70x3 mm
Melt flow index (MFI)	280 °C / 5 kg	75	g/10 min	DIN EN ISO 1133	
MVR	280 °C / 5 kg	65	cm ³ /10 min	DIN EN ISO 1133	
Bulk density		0,64	g/cm ³	EN ISO 60	
Processing parameter	parameter	value	unit	norm	comment
Cylinder/processing temperature		280 - 300	°C	-	
Mould temperature		80 - 120	°C	-	
Material temperature		290 - 300	°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		< 0,1	%	-	
Drying temperature		80	°C	-	
Drying time		4 - 8	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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