

TECAFIL PA12 natural - Filament

Chemical Designation

PA 12 (Polyamide 12)

Colour

white

Density

1.01 g/cm³

Data generated directly after machining
(standard climate Germany).

Main features

→ Standard spool body: OD Ø 200mm,
width 55mm, Take up Ø52mm

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	tr./kond.	1600 / 1100	MPa	DIN EN ISO 527-1	
Notched impact strength (Charpy)	(23°C, kond.)	10	kJ/m ²	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature	(DSC 10°C/min)	37	°C	DIN EN ISO 11357	
Melting temperature	10°C/min, tr.	180	°C	DIN EN ISO 11357	
Service temperature	short term	150	°C	-	
Service temperature	long term	110	°C	-	

Other properties	parameter	value	unit	norm	comment
MVR	(275°C/5kg/tr.)	20	cm ³ /10 min	-	

Processing parameter	parameter	value	unit	norm	comment
Material temperature	(Spritzgießen, Extrusion)	220 - 260	°C	-	

→ 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		0.04	%	-	
Drying temperature		80	°C	-	
Drying time		6 - 16	h	-	

→ To achieve optimum mechanical properties, it is recommended to pre-dry the material with the above mentioned parameters.

→ The filament should preferably be stored in dry, normal temperature rooms and protected from direct sunlight.

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