

Product Texts

PA66 20% carbon fibre reinforced injection moulding grade. Black colour.

Suitable for parts and components requiring very high mechanical properties: stiffness, dimensional stability, fatigue and creep resistance. The presence of carbon fibres also provides higher electrical and thermal conductivity.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.5 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	16600 / 10200	MPa	ISO 527
^[C] Stress at break	220 / 150	MPa	ISO 527
^[C] Strain at break	2.3 / 3.5	%	ISO 527
^[C] Charpy impact strength, +23°C	55 / 75	kJ/m ²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	100 / 100	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	6 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.7 / *	%	Sim. to ISO 62
^[C] Density	1220 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.1	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 100	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Granules, Black

Additives

Release agent

Special Characteristics

Increased electrical conductivity, Thermally Conductive

Features

Creep Resistance, Fatigue Resistance

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

The material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.10%. Typical conditions with a desiccant drier: temperature 80 ° C, dew point -20 ° C or below, time 2-4 h or more. Avoid excessive shear rates and high thermal stresses for better processing. Special care must be taken to avoid moisture absorption and contamination with other polymers when adding regrind material. Colour variation and mechanical properties reduction may occur and should always be carefully monitored.

Injection Molding Processing Parameters

Melt Temperature

280 - 300°C

Mold Temperature

80 - 100°C

Injection Speed

medium