

Product Texts

50% Glass Reinforced

ISO 1043 PA46-GF50

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Density of melt	1490	kg/m ³	-
^[C] Thermal conductivity of melt	0.387	W/(m K)	-
^[C] Spec. heat capacity of melt	1970	J/(kg K)	-
^[C] Eff. thermal diffusivity	1.32E-7	m ² /s	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	16000 / 10000	MPa	ISO 527
^[C] Stress at break	250 / 150	MPa	ISO 527
^[C] Strain at break	2.7 / 5	%	ISO 527
^[C] Tensile creep modulus, 1000h	* / 8000	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	100 / 110	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	90 / 100	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	16 / 24	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	14 / 14	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	295 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	290 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	290 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	290 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	40 / *	E-6/K	ISO 11359-1/-2
^[C] Oxygen index	22 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.3 / 16	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4 / 4.7	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	70 / 6000	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	200 / 1000	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E12 / 1E8	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
^[C] Electric strength	30 / 20	kV/mm	IEC 60243-1
^[C] Comparative tracking index	300 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	6.75 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.85 / *	%	Sim. to ISO 62
^[C] Density	1620 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Special Characteristics

Platable

Delivery form

Pellets

Regional Availability

Europe, Asia Pacific

Additives

Lubricants, Release agent

Other text information**Injection molding**[Injection Molding Recommendations](#)[Hot runner recommendations for molding high heat performance Engineering Materials](#)[Steel recommendations for molds screws and barrels](#)[Supporting document for Stanyl quality processing](#)[Trouble shooting guideline for injection molding](#)