

Product Texts

Injection Molding, 40% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF40

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	13000 / 8800	MPa	ISO 527
^[C] Stress at break	220 / 145	MPa	ISO 527
^[C] Strain at break	3 / 5	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 7700	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 6800	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	100 / 95	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	90 / 80	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	15 / 20	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	10 / 12	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	262 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	250 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	250 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.9 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	270 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	260 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / -	Ohm*m	IEC 62631-3-1
^[C] Electric strength	40 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	575 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	4.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.7 / *	%	Sim. to ISO 62
^[C] Density	1460 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Delivery form

Pellets

Regional Availability

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

Other text information**Injection molding**

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C