

Product Texts

Injection Molding, 25% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6-GF25 FR(40)

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	9800 / 6100	MPa	ISO 527
^[C] Stress at break	125 / 80	MPa	ISO 527
^[C] Strain at break	3.4 / 6.7	%	ISO 527
Flexural modulus, 23°C	9400 / 6000	MPa	ISO 178
Flexural strength	200 / 140	MPa	ISO 178
^[C] Charpy impact strength, +23°C	65 / 65	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	60 / 55	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	- / 13	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	- / 10	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	55 / 60	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	10 / 14	kJ/m ²	ISO 180/1A

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	200 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	219 / *	°C	ISO 75-1/-2
Vicat softening temperature, B	212 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	80 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Burning behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
^[C] Burning Behav. 5V at thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
^[C] Oxygen index	32 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.9 / 8.3	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.5 / 3.9	-	IEC 62631-2-1

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^[C] Dissipation factor, 100Hz	150 / 1210	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	160 / 710	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13 / 1.4E11	Ohm*m	IEC 62631-3-1
^[C] Electric strength	40 / 38	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	4.9 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
^[C] Density	1380 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	260	°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	-
Melt temperature	250 - 280	°C	-
Mold temperature	70 - 90	°C	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Halogen-free, 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**

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 250 - 280 °C

Mold temperature: 70 - 90 °C