

Product Texts

Injection Molding, 30% Glass Reinforced

ISO 1043 PA6-GF30

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	9800 / 6100	MPa	ISO 527
^[C] Stress at break	180 / 110	MPa	ISO 527
^[C] Strain at break	3 / 7	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 5100	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 4100	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	80 / 90	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	70 / 70	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	13 / 20	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	10 / 10	kJ/m ²	ISO 179/1eA
^[C] Puncture energy, +23°C	8 / 14	J	ISO 6603-2
^[C] Puncture energy, -30°C	6 / -	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	222 / *	°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	215 / *	°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	80 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn. Thickness tested	HB / * 1.5 / *	class mm	IEC 60695-11-10 -
^[C] Oxygen index	22 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4 / 10	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4 / 4	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	50 / 2000	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	150 / 1200	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
^[C] Electric strength	40 / 35	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	7 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2.1 / *	%	Sim. to ISO 62
^[C] Density	1360 / -	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

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	280	°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	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Release agent

Special Characteristics

U.V. stabilized or stable to weather

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): 270 - 290 °C

Mold temperature: 80 - 120 °C