

Product Texts

Injection Molding, 30% Glass Reinforced, Heat Stabilized, Recycled Content

ISO 1043 PA6-GF30

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	9500 / 5800	MPa	ISO 527
^[C] Stress at break	170 / 100	MPa	ISO 527
^[C] Strain at break	3.5 / 6	%	ISO 527
Flexural modulus, 23°C	8500 / 5000	MPa	ISO 178
Flexural strength	270 / 160	MPa	ISO 178
^[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	75 / 90	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	65 / 60	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	10 / 20	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	65 / 80	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	10 / 20	kJ/m ²	ISO 180/1A
Izod notched impact strength	10 / 10	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
^[C] Puncture - maximum force, +23°C	1000 / 1230	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	860 / -	N	ISO 6603-2
^[C] Puncture energy, +23°C	3 / 6	J	ISO 6603-2
^[C] Puncture energy, -30°C	3 / -	J	ISO 6603-2
Ball indentation hardness	210 / 100	MPa	ISO 2039-1

[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
Vicat softening temperature, B	200 / *	°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	100 / *	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	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
^[C] Oxygen index	22 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	700	°C	IEC 60695-2-12
GWFI - thickness tested (1)	1.5	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.2 / 12	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.8 / 4.4	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	100 / 2550	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	170 / 780	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1

[C] Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
[C] Electric strength	35 / 30	kV/mm	IEC 60243-1
[C] Comparative tracking index	425 / -	-	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
Bulk density	700	kg/m ³	-

[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

Features

Thermal Stability

Delivery form

Pellets

Certifications

Recycled Resin Content, ISCC Plus

Special Characteristics

Heat stabilized or stable to heat

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