

Product Texts

Injection Molding, 20% Glass Reinforced, Flame Retardant (halogen free)

ISO 1043 PBT-GF20 FR(40+30)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	15	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	8500	MPa	ISO 527
^[C] Stress at break	90	MPa	ISO 527
^[C] Strain at break	2.4	%	ISO 527
Flexural modulus, 23°C	8300	MPa	ISO 178
Flexural strength	140	MPa	ISO 178
^[C] Charpy impact strength, +23°C	35	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	30	kJ/m ²	ISO 179/1eU
Izod impact strength, +23°C	30	kJ/m ²	ISO 180/1U

[C]: CAMPUS

Thermal properties	Value	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	207	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	222	°C	ISO 75-1/-2
Vicat softening temperature, B	205	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	30	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.	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	0.4	mm	-
^[C] Burning Behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.75	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.75	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
^[C] Electric strength	33	kV/mm	IEC 60243-1
^[C] Comparative tracking index	525	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1470	kg/m ³	ISO 1183
Bulk density	800	kg/m ³	-

[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	120	°C	-
Pre-drying - Time	4 - 8	h	-
Melt temperature	250 - 270	°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 circulating air dryer: 120 °C

Drying time circulating air dryer: 4 - 8 h

PROCESSING

Melt temperature (Tmin - Tmax): 250 - 270 °C

admissible residence time at Tmax: <5 min

Mold temperature: 70 - 90 °C