

**Product Texts**

Injection Molding, 20% Glass Reinforced, Flame Retardant

ISO 1043 PBT-GF20 FR(17)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	18	cm <sup>3</sup> /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.2	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	7500	MPa	ISO 527
<sup>[C]</sup> Stress at break	125	MPa	ISO 527
<sup>[C]</sup> Strain at break	2.8	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	7300	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	6900	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	45	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	40	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Puncture - maximum force, +23°C	628	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	1.8	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	200	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	220	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	30	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	100	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
<sup>[C]</sup> Burning Behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.5	mm	-
<sup>[C]</sup> Oxygen index	32	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	3.8	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	3.6	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	40	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	180	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	>1E15	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	29	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	200	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	0.3	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	0.1	%	Sim. to ISO 62
<sup>[C]</sup> Density	1570	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	97	cm³/g	ISO 307, 1157, 1628
[C]: CAMPUS			

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	250	°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	-
Processing humidity	≤0.02	%	-
Melt temperature	240 - 260	°C	-
Mold temperature	80 - 100	°C	-

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets

**Additives**

Lubricants

**Special Characteristics**

Flame retardant, 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: 0.00 - 0.02 %  
Drying temperature circulating air dryer: 120 °C

Drying time circulating air dryer: 4 - 8 h

**PROCESSING**

Melt temperature (Tmin - Tmax): 240 - 260 °C

Mold temperature: 80 - 100 °C