

**Product Texts**

Injection Molding, 45% Glass Reinforced, UV Stabilized, Excellent Surface Properties

ISO 1043 (PBT+PET)-GF45

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	30	cm <sup>3</sup> /10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	0.8	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	16000	MPa	ISO 527
<sup>[C]</sup> Stress at break	160	MPa	ISO 527
<sup>[C]</sup> Strain at break	1.9	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	16500	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	15000	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	60	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	65	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	775	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	3.5	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	205	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	225	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	20	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	80	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
<sup>[C]</sup> Oxygen index	21	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	4.3	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	4.2	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	140	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	28	kV/mm	IEC 60243-1

[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	1690	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	80	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	270	°C	ISO 294
Injection Molding, mold temperature	90	°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	260 - 280	°C	-
Mold temperature	80 - 100	°C	-

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets

**Additives**

Release agent

**Special Characteristics**

U.V. stabilized or stable to weather, 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): 260 - 280 °C

Mold temperature: 80 - 100 °C