

Data sheet
Pocan T7391 900044 POS151

PBT+PET, 45 % glass fibers, injection molding, improved surface finish, increased temperature peak load, UV-stabilized

ISO Shortname: ISO 20028-PBT+PET,GF45,GHLMR,09-160

Property	Test Condition	Unit	Standard	guide value
Rheological properties				
C Melt volume-flow rate	260 °C; 5 kg	cm ³ /(10 min)	ISO 1133-1	30
C Molding shrinkage, parallel	60x60x2; 270 °C / MT 90°C; 600 bar	%	ISO 294-4	0.2
C Molding shrinkage, transverse	60x60x2; 270 °C / MT 90°C; 600 bar	%	ISO 294-4	0.8
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	16000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	160
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	1.9
C Tensile creep modulus	1 h	MPa	ISO 899-1	16500
C Tensile creep modulus	1000 h	MPa	ISO 899-1	15000
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	60
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	65
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	<10
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	<10
Izod impact strength		kJ/m ²	ISO 180-1U	60
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	55
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	<10
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	15500
Flexural strength	2 mm/min	MPa	ISO 178-A	260
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.1
Ball indentation hardness		N/mm ²	ISO 2039-1	250
Thermal properties				
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	225 - 250
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	205
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	225
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	150
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	210
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10-4/K	ISO 11359-1,-2	0.2
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10-4/K	ISO 11359-1,-2	0.8
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB
C Oxygen index	Method A	%	ISO 4589-2	21
Thermal conductivity	23 °C	W/(m·K)	ISO 8302	0.27
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	220
Temperature index (Tensile strength)	20000 h	°C	IEC 60216-1	155
Halving interval (Tensile strength)		°C	IEC 60216-1	10.2
Temperature index (Tensile impact strength)	20000 h	°C	IEC 60216-1	150
Halving interval (Tensile impact strength)		°C	IEC 60216-1	13.5
Temperature index (Electric strength)	20000 h	°C	IEC 60216-1	155
Halving interval (Electric strength)		°C	IEC 60216-1	10.2
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	750
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	4.3
C Relative permittivity	1 MHz	-	IEC 60250	4.2
C Dissipation factor	100 Hz	10-4	IEC 60250	20
C Dissipation factor	1 MHz	10-4	IEC 60250	140
C Volume resistivity		Ohm·m	IEC 60093	>1E13
C Surface resistivity		Ohm	IEC 60093	>1E15
C Electric strength	1 mm	kV/mm	IEC 60243-1	28
Electrolytic corrosion		Rating	IEC 60426	A 1
Other properties (23 °C)				

C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.3
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	0.1
C Density		kg/m ³	ISO 1183	1690
Bulk density		kg/m ³	ISO 60	800
Material specific properties				
C Viscosity number		cm ³ /g	ISO 1628-5	80
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	270
C Injection molding-Mold temperature		°C	ISO 294	90
Processing recommendations				
Drying temperature circulating air dryer		°C	-	120
Drying time circulating air dryer		h	-	4-8
Residual moisture content		%	Acc. to Karl Fischer	0-0.02
Melt temperature (Tmin - Tmax)		°C	-	260-280
Mold temperature		°C	-	80-100

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

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Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

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Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

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