

Pocan B1205XF 000000

PBT, non-reinforced, injection molding, improved flowability, improved impact strength

ISO Shortname: ISO 20028-PBT,,GHMPR,09-020

Property	Test Condition	Unit	Standard	guide value ¹
Rheological properties				
C Melt volume-flow rate	250 °C; 2.16 kg	cm ³ /(10 min)	ISO 1133-1	50
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	2.1
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	2.1
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.3
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.3
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2500
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	5.0
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	10
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	140
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	120
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	23 °C	kJ/m ²	ISO 180-1U	110
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	90
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	2500
Flexural strength	2 mm/min	MPa	ISO 178-A	85
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	5.9
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	75
Thermal properties				
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	225
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	60
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	150
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	180
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	1.2
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	1.2
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB
Burning behavior US-FMVSS302			ISO 3795	passed
Electrical properties (23 °C/50 % r. h.)				
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
C Density		kg/m ³	ISO 1183	1290
Bulk density		kg/m ³	ISO 60	800
Material specific properties				



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Property	Test Condition	Unit	Standard	guide value ¹
C Viscosity number		cm ³ /g	ISO 1628-5	100
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	250
C Injection molding-Mold temperature		°C	ISO 294	80
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	-	250-260
Mold temperature		°C	-	80-100

Notes

1 Typical properties: these are not to be construed as specifications

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.

LANXESS Corporation | Pittsburgh, PA 15275

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