

Pocan DP2004 000000

PBT, non-reinforced, injection molding, halogen free flame retardant

ISO Shortname: ISO 20028-PBT,,GFHMR,09-020; ISO 1043-4 FR(30+40)

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	55
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	2.3
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	2.3
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.2
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	2300
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	8.0
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	75
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	65
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	2100
Flexural strength	2 mm/min	MPa	ISO 178-A	75
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	6.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	60
Ball indentation hardness		N/mm ²	ISO 2039-1	120
Thermal properties				
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	224
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	75
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	160
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	185
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	V-2
C Burning behavior UL 94	0.75 mm	Class	UL 94	V-2
C Oxygen index	Method A	%	ISO 4589-2	28
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	202
Glow wire test (GWFI)	0.4 mm	°C	IEC 60695-2-12	960
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	960
Glow wire test (GWFI)	1.5 mm	°C	IEC 60695-2-12	960
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	800
Glow wire test (GWIT)	1.5 mm	°C	IEC 60695-2-13	800
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	800
Electrical properties (23 °C/50 % r. h.)				
C Volume resistivity		Ohm·m	IEC 62631-3	>1E13
C Surface resistivity		Ohm	IEC 62631-3	>1E15
C Electric strength	1 mm	kV/mm	IEC 60243-1	30



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Property	Test Condition	Unit	Standard	guide value ¹
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Comparative tracking index CTI	Solution A	PLC	UL 746A	0
Other properties (23 °C)				
C Density		kg/m ³	ISO 1183	1320
Bulk density		kg/m ³	ISO 60	800
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	0.00-0.02
Melt temperature (Tmin - Tmax)		°C	-	240-260
admissible residence time at Tmax		min	-	<5
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

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