

# Datasheet

## Pocan B7425 000000

PBT, 20% micro glass beads, injection molding, low tendency to warp, improved surface finish

ISO Shortname: ISO 20028-PBT,GB20,GHMR,11-030

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>
<b>Rheological properties</b>				
C Melt volume-flow rate	260 °C; 5 kg	cm <sup>3</sup> /(10 min)	ISO 1133-1	35
C Molding shrinkage, parallel	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	2.1
C Molding shrinkage, transverse	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	2.1
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.2
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.2
<b>Mechanical properties (23 °C/50 % r. h.)</b>				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	3300
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	50
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	6.0
C Tensile creep modulus	1 h	MPa	ISO 899-1	3300
C Tensile creep modulus	1000 h	MPa	ISO 899-1	2700
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	35
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	25
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	< 10
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	< 10
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	30
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	20
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	< 10
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	< 10
Flexural modulus	2 mm/min	MPa	ISO 178-A	3300
Flexural strength	2 mm/min	MPa	ISO 178-A	90
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	5.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	85
Ball indentation hardness		N/mm <sup>2</sup>	ISO 2039-1	160
<b>Thermal properties</b>				
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	70
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	170
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	190
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1.0
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1.0
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB

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C Oxygen index	Method A	%	ISO 4589-2	23
Thermal conductivity	23 °C	W/(m·K)	ISO 8302	0.28
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	200
Temperature index (Tensile strength)	20000 h	°C	IEC 60216-1	140
Halving interval (Tensile strength)		°C	IEC 60216-1	14
Relative temperature index (Tensile strength)		°C	UL 746B	130
Temperature index (Tensile impact strength)	20000 h	°C	IEC 60216-1	130
Halving interval (Tensile impact strength)		°C	IEC 60216-1	7.8
Relative temperature index (Tensile impact strength)		°C	UL 746B	125
Temperature index (Electric strength)	20000 h	°C	IEC 60216-1	160
Halving interval (Electric strength)		°C	IEC 60216-1	11.4
Relative temperature index (Electric strength)		°C	UL 746B	130
Glow wire test (GWI)	2.0 mm	°C	IEC 60695-2-12	650
Burning behavior US-FMVSS302			ISO 3795	passed
<b>Electrical properties (23 °C/50 % r. h.)</b>				
C Relative permittivity	100 Hz	-	IEC 60250	3.8
C Relative permittivity	1 MHz	-	IEC 60250	3.6
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	170
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	25
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	250
<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.4
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	0.1
C Density		kg/m <sup>3</sup>	ISO 1183	1440
Bulk density		kg/m <sup>3</sup>	ISO 60	900
<b>Material specific properties</b>				
C Viscosity number		cm <sup>3</sup> /g	ISO 1628-5	130
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	260
C Injection molding-Mold temperature		°C	ISO 294	80
<b>Processing recommendations</b>				
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

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup>
Melt temperature (Tmin - Tmax)		°C	-	250-270
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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