

# Datasheet

## Pocan B1700 000000

PBT, non-reinforced, extrusion, suitable for food-contact

ISO Shortname: ISO 20028-PBT,,G,13-030

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>
<b>Rheological properties</b>				
C Melt volume-flow rate	250 °C; 2.16 kg	cm <sup>3</sup> /(10 min)	ISO 1133-1	8
Molding shrinkage, parallel	150x105x3; 260 °C / MT 80 °C; 600 bar	%	acc. ISO 294-4	1.6
Molding shrinkage, transverse	150x105x3; 260 °C / MT 80 °C; 600 bar	%	acc. ISO 294-4	1.6
Post- shrinkage, parallel	150x105x3; 150 °C; 1 h	%	acc. ISO 294-4	0.5
Post- shrinkage, transverse	150x105x3; 150 °C; 1 h	%	acc. ISO 294-4	0.5
<b>Mechanical properties (23 °C/50 % r. h.)</b>				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2600
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	4.0
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	>50
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	N
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	230
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	N
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	180
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 strength	2 mm/min	MPa	ISO 178-A	85
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	6.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	75
C Puncture energy	23 °C	J	ISO 6603-2	23
C Puncture energy	-30 °C	J	ISO 6603-2	16
C Puncture maximum force	23 °C	N	ISO 6603-2	3877
C Puncture maximum force	-30 °C	N	ISO 6603-2	3926
<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	60
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	140
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	45
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	170
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1.3
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1.3

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup>
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB
<b>Electrical properties (23 °C/50 % r. h.)</b>				
C Relative permittivity	100 Hz	-	IEC 60250	3.4
C Relative permittivity	1 MHz	-	IEC 60250	3.2
C Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	15
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	200
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
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.5
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	0.2
C Density		kg/m <sup>3</sup>	ISO 1183	1300
Bulk density		kg/m <sup>3</sup>	ISO 60	800
<b>Material specific properties</b>				
C Viscosity number		cm <sup>3</sup> /g	ISO 1628-5	158
<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

### Notes

<sup>1</sup> 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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Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

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