

# Datasheet

## Pocan ECOB4239 000000

PBT, 30% glass fibers, injection molding, flame retardant

ISO Shortname: ISO 20028-PBT,GF30 REC,GFHMR,09-110; ISO 1043-4 FR(17)

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	37
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	0.3
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	0.9
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
<b>Mechanical properties (23 °C/50 % r. h.)</b>				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	11500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	125
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.1
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	50
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	50
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	45
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	45
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	10500
Flexural strength	2 mm/min	MPa	ISO 178-A	200
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.6
Ball indentation hardness		N/mm <sup>2</sup>	ISO 2039-1	186
C Puncture energy	23 °C	J	ISO 6603-2	2.3
C Puncture energy	-30 °C	J	ISO 6603-2	2.1
C Puncture maximum force	23 °C	N	ISO 6603-2	669
C Puncture maximum force	-30 °C	N	ISO 6603-2	649
<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	200
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	220
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	205
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.2
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.9
C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0

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C Burning behavior UL 94	0.4 mm	Class	UL 94	V-0
C Burning behavior UL 94-5V	1.5 mm	Class	UL 94	5VA
C Oxygen index	Method A	%	ISO 4589-2	32
Thermal conductivity	23 °C	W/(m·K)	ISO 8302	0.24
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	213
Temperature index (Tensile strength)	20000 h	°C	IEC 60216-1	155
Halving interval (Tensile strength)		°C	IEC 60216-1	9.3
Relative temperature index (Tensile strength)		°C	UL 746B	140
Temperature index (Tensile impact strength)	20000 h	°C	IEC 60216-1	130
Halving interval (Tensile impact strength)		°C	IEC 60216-1	8.4
Relative temperature index (Tensile impact strength)		°C	UL 746B	110
Temperature index (Electric strength)	20000 h	°C	IEC 60216-1	145
Halving interval (Electric strength)		°C	IEC 60216-1	12
Relative temperature index (Electric strength)		°C	UL 746B	125
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	960
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	725
Glow wire test (GWIT)	1.5 mm	°C	IEC 60695-2-13	725
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	725
<b>Electrical properties (23 °C/50 % r. h.)</b>				
C Relative permittivity	100 Hz	-	IEC 60250	3.9
C Relative permittivity	1 MHz	-	IEC 60250	3.8
C Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	60
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	520
C Volume resistivity		Ohm·m	IEC 62631-3	>1E14
C Surface resistivity		Ohm	IEC 62631-3	>1E16
C Electric strength	1 mm	kV/mm	IEC 60243-1	35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	275
<b>Other properties (23 °C)</b>				
C Density		kg/m <sup>3</sup>	ISO 1183	1650
Bulk density		kg/m <sup>3</sup>	ISO 60	800
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	250
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	-	240-260
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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Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

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