

Datasheet

Pocan BF4222 000000

PBT, 20% glass fibers, injection molding, flame retardant

ISO Shortname: ISO 20028-PBT,GF20,GFHMR,09-070; ISO 1043-4 FR(17)

Property	Test Condition	Unit	Standard	guide value ¹
Rheological properties				
C Melt volume-flow rate	260 °C; 2.16 kg	cm ³ /(10 min)	ISO 1133-1	12
C Molding shrinkage, parallel	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.5
C Molding shrinkage, transverse	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	1.1
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
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	7500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	115
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.6
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	50
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	45
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	45
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	40
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	7900
Flexural strength	2 mm/min	MPa	ISO 178-A	190
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.3
Ball indentation hardness		N/mm ²	ISO 2039-1	176
Thermal properties				
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	195
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	215
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.3
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	1.0
C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0
C Burning behavior UL 94	0.75 mm	Class	UL 94	V-0
C Oxygen index	Method A	%	ISO 4589-2	28.9
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	211
Glow wire test (GWI)	0.75 mm	°C	IEC 60695-2-12	960
Glow wire test (GWI)	1.5 mm	°C	IEC 60695-2-12	960

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Property	Test Condition	Unit	Standard	guide value ¹
Glow wire test (GWFI)	3.0 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
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	211
Electrical properties (23 °C/50 % r. h.)				
C Volume resistivity		Ohm·m	IEC 62631-3	>1E14
C Surface resistivity		Ohm	IEC 62631-3	>1E17
C Electric strength	1 mm	kV/mm	IEC 60243-1	31
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	225
Comparative tracking index CTI	Solution A	PLC	UL 746A	2
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.4
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	0.2
C Density		kg/m ³	ISO 1183	1568
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
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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