Datasheet
Pocan BF4409 000000

PBT, 7% glass fibers, injection molding, flame retardant

ISO Shortname: ISO 20028-PBT,GF7,GFHMR,11-050; 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	cm³/(10 min)	ISO 1133-1	14
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	1.3
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	1.2
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	4700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	80
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	4.4
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	45
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	45
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	< 10
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	< 10
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	40
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	40
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	< 10
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	< 10
Izod notched impact strength	-40 °C	kJ/m²	ISO 180-1A	< 10
Flexural modulus	2 mm/min	MPa	ISO 178-A	4200
Flexural strength	2 mm/min	MPa	ISO 178-A	130
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4.9
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	120
Ball indentation hardness		N/mm²	ISO 2039-1	155
Thermal properties				
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	150
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	205
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	205
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.6
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	1.1
C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0
C Burning behavior UL 94	0.4 mm	Class	UL 94	V-0
C Oxygen index	Method A	%	ISO 4589-2	31

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Property	Test Condition	Unit	Standard	guide value [1]
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	211
Glow wire test (GWFI)	0.4 mm	°C	IEC 60695-2-12	960
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	725
Glow wire test (GWIT)	1.6 mm	°C	IEC 60695-2-13	725
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	725
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3.6
C Relative permittivity	1 MHz	-	IEC 60250	3.5
C Dissipation factor	100 Hz	10^{-4}	IEC 60250	20
C Dissipation factor	1 MHz	10^{-4}	IEC 60250	190
C Volume resistivity		Ohm·m	IEC 62631-3	>1E12
C Surface resistivity		Ohm	IEC 62631-3	>1E16
C Electric strength	1 mm	kV/mm	IEC 60243-1	27
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	200
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.35
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	0.15
C Density		kg/m³	ISO 1183	1490
Bulk density		kg/m³	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
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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