

Datasheet

Pocan AF4120 000000

PBT+ASA, 20% glass fibers, injection molding, flame retardant, low tendency to warp

ISO Shortname: ISO 20028-PBT+ASA,GF20,GFMR,07-070; ISO1043-4 FR(17)

Property	Test Condition	Unit	Standard	guide value ¹
Rheological properties				
C Melt volume-flow rate	260 °C; 5 kg	cm ³ /(10 min)	ISO 1133-1	40
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	0.4
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar	%	ISO 294-4	0.7
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
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	7400
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	105
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.4
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	40
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	35
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	35
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	7400
Flexural strength	2 mm/min	MPa	ISO 178-A	155
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.6
Ball indentation hardness		N/mm ²	ISO 2039-1	176
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	170
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	209
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	0.4 mm	Class	UL 94	V-0
C Oxygen index	Method A	%	ISO 4589-2	28
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	193
Glow wire test (GWI)	0.4 mm	°C	IEC 60695-2-12	960
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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Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960
Glow wire test (GWIT)	0.4 mm	°C	IEC 60695-2-13	900
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	825
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	750
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	155
Electrical properties (23 °C/50 % r. h.)				
C Volume resistivity		Ohm-m	IEC 62631-3	8E13
C Surface resistivity		Ohm	IEC 62631-3	2E16
C Electric strength	1 mm	kV/mm	IEC 60243-1	35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	200
Comparative tracking index CTI	Solution A	PLC	UL 746A	2
Other properties (23 °C)				
C Density		kg/m ³	ISO 1183	1520
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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