

Data sheet

Pocan KU2-7503/1 000000

PBT, non-reinforced, injection molding, extrusion, flame retardant

ISO Shortname: ISO 20028-PBT,,GFHMR,11-030; ISO 1043-4 FR(17)

Property	Test Condition	Unit	Standard	guide value
Rheological properties				
C Melt volume-flow rate	250 °C; 2.16 kg	cm ³ /(10 min)	ISO 1133-1	15
C Molding shrinkage, parallel	60x60x2; 250 °C / WZ 80° C; 600 bar %		ISO 294-4	1.8
C Molding shrinkage, transverse	60x60x2; 250 °C / WZ 80° C; 600 bar %		ISO 294-4	1.7
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.3
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.3
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2900
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	60
C Yield strain	50 mm/min	%	ISO 527-1,-2	6.0
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	8.0
C Tensile creep modulus	1 h	MPa	ISO 899-1	2400
C Tensile creep modulus	1000 h	MPa	ISO 899-1	1400
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	130
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	100
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	120
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	90
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	3000
Flexural strength	2 mm/min	MPa	ISO 178-A	100
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	90
Energy to peak force	23 °C	Nm	acc. ISO 6603-2	60
Ball indentation hardness		N/mm ²	ISO 2039-1	130
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	75
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	145
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	170
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10-4/K	ISO 11359-1,-2	0.9
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
Thermal conductivity	23 °C	W/(m·K)	ISO 8302	0.25
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	200
Glow wire test (GWFI)	1.6 mm	°C	IEC 60695-2-12	960
Glow wire test (GWIT)	1.6 mm	°C	IEC 60695-2-13	700
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	700
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3.4
C Relative permittivity	1 MHz	-	IEC 60250	3.2
C Dissipation factor	100 Hz	10-4	IEC 60250	20
C Dissipation factor	1 MHz	10-4	IEC 60250	160
C Volume resistivity		Ohm·m	IEC 60093	>1E13
C Surface resistivity		Ohm	IEC 60093	>1E15
C Electric strength	1 mm	kV/mm	IEC 60243-1	28
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	250
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	0.3
C Density		kg/m ³	ISO 1183	1420
Bulk density		kg/m ³	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	0-0.02
Melt temperature (Tmin - Tmax)	°C	-	240-260
Mold temperature	°C	-	80-100

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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Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

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