

Makroblend KU2-7912/4

PC+PBT Blends, elastomer modified / Non reinforced

(PC+PBT)-blend, impact modified, Injection molding grade, high toughness at low temperatures, ideal for painted applications, unreinforced

ISO Shortname

ISO 7792-1-PBT/PC,MHPR,-020

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
Göttfert melt viscosity	165 s ⁻¹ ; 260 °C	Pa·s	Bayer test	670
C Melt volume-flow rate	260 °C; 5 kg	cm ³ /10 min	ISO 1133	16
Molding shrinkage, parallel/normal	Value range based on general practical experience (600bar)	%	b.o. ISO 2577	0,7 - 0,9
Post- shrinkage, parallel/normal	Value range based on general practical experience (1h; 90°C)	%	b.o. ISO 2577	0,1 - 0,2
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2150
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	50
C Yield strain	50 mm/min	%	ISO 527-1,-2	4
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	> 50
Stress at break	50 mm/min	MPa	ISO 527-1,-2	45
Flexural modulus	2 mm/min	MPa	ISO 178	2100
Flexural strain at flexural strength	2 mm/min	%	ISO 178	5.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	66
Flexural strength	2 mm/min	MPa	ISO 178	75
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	N
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	N
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	60
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	45
Izod impact strength	23 °C	kJ/m ²	ISO 180-U	N
Izod impact strength	-30 °C	kJ/m ²	ISO 180-U	N
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-A	60
Izod notched impact strength	-20 °C	kJ/m ²	ISO 180-A	52
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-A	45
Ball indentation hardness		N/mm ²	ISO 2039-1	100
Thermal properties				
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	223
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	85
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	107
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	125
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	0.9
C Burning behavior UL 94 (1.5 mm)	1.6 mm	Class	UL 94	HB
C Oxygen index	Method A	%	ISO 4589-2	21
Thermal conductivity, cross-flow	23 °C; 50 % r. h.	W/(m·K)	ISO 8302	0,2
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	700
Burning rate (US-FMVSS)	>=1.0 mm	mm/min	ISO 3795	passed

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Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3,2
C Relative permittivity	1 MHz	-	IEC 60250	3,1
C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	15
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	130
C Volume resistivity		Ohm·m	IEC 60093	>1E15
C Surface resistivity		Ohm	IEC 60093	>1E17
C Electrical strength	1 mm	kV/mm	IEC 60243-1	35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	500
C Comparative tracking index CTI M	Solution B	Rating	IEC 60112	100
C Electrolytic corrosion		Rating	IEC 60426	A1
Other properties (23 °C)				
C Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.5
C Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.2
C Density		kg/m ³	ISO 1183-1	1200
C Bulk density		g/cm ³	ISO 60	0,7
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	260
C Injection molding-Mold temperature		°C	ISO 294	70
C Injection molding-Injection velocity		mm/s	ISO 294	200

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.

Impact properties: N = non-break, P = partial break, C = complete break

