

Makroblend® EL700

/ (PC+PET) blend; unreinforced; flame-retardant; impact modified; injection molding grade. Good impact strength, dimensional stability and chemical resistance. Uses include indoor electrical enclosures.

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	270 °C; 5 kg	cm³/10 min	ISO 1133	15
Molding shrinkage, parallel/normal	Value range based on general practical experience (600bar)	%	b.o. ISO 2577	0.6 - 0.8

Mechanical properties (23 °C/50 % r. h.)

C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2350
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	58
C Yield strain	50 mm/min	%	ISO 527-1,-2	4.5
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	100
Stress at break	50 mm/min	MPa	ISO 527-1,-2	57
Flexural modulus	2 mm/min	MPa	ISO 178	2300
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	72
Flexural strength	2 mm/min	MPa	ISO 178	86
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	65
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	30
C Puncture maximum force	23 °C	N	ISO 6603-2	4100
C Puncture maximum force	-30 °C	N	ISO 6603-2	5200
C Puncture energy	23 °C	J	ISO 6603-2	45
C Puncture energy	-30 °C	J	ISO 6603-2	50
Izod notched impact strength	23 °C	kJ/m²	ISO 180-A	60
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-A	30

Thermal properties

C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	100
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	123
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	136
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.8
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) [UL recognition]		Class	UL 94	V-0
C Burning behavior UL 94 [UL recognition]	3.0 mm	Class	UL 94	V-0
C Burning behavior UL 94-5V [UL recognition]	3.0 mm	Class	UL 94	5VA
Thermal conductivity, cross-flow	23 °C; 50 % r. h.	W/(m·K)	ISO 8302	0.2

Electrical properties (23 °C/50 % r. h.)

C Relative permittivity	100 Hz	-	IEC 60250	3.1
C Relative permittivity	1 MHz	-	IEC 60250	3.0
C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	20
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	130
C Volume resistivity		Ohm·m	IEC 60093	1E14
C Surface resistivity		Ohm	IEC 60093	1E16
C Electrical strength	1 mm	kV/mm	IEC 60243-1	34
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	225

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/m³	ISO 1183-1	1280



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Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	270
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



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Disclaimer

Information Impact properties

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Typical value

These values are typical values only. Unless explicitly agreed in written form, the do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

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