

Makroblend® UT250

/ (PC+PET)-blend, impact modified, easy release, injection molding. Makroblend UT250 offers high heat resistance, good chemical resistance and flowability. Additionally, molded parts from UT250 having exceptional dimensional stability.

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	265 °C; 5 kg	cm ³ /10 min	ISO 1133	22
Molding shrinkage, parallel/normal	Value range based on general practical experience (600bar)	%	b.o. ISO 2577	0.6 - 0.8
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	2250
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	5
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	>50
Stress at break	50 mm/min	MPa	ISO 527-1,-2	50
Flexural modulus	2 mm/min	MPa	ISO 178	2300
Flexural strain at flexural strength	2 mm/min	%	ISO 178	6.1
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	72
Flexural strength	2 mm/min	MPa	ISO 178	88
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	70
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	30
Izod impact strength	23 °C	kJ/m ²	ISO 180-1C	N
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1C	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	40
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-A	25
Ball indentation hardness		N/mm ²	ISO 2039-1	100
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	110
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	125
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	140
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3.2
C Relative permittivity	1 MHz	-	IEC 60250	3.0
C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	16
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	146
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	34
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	0.55
C Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.2
C Density		kg/m ³	ISO 1183-1	1220





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Property	Test Condition	Unit	Standard	typical Value
Processing conditions for test specimens				
Drying temperature		°C	ISO 294	110
Drying time		h	ISO 294	4
Residual humidity		%	ISO 294	<0.01
C Injection molding-Melt temperature		°C	ISO 294	265
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

