



Makroblend® UT250 HR

PC+PET Blends, elastomer modified / Non reinforced

(PC+PET)-blend, impact modified, improved hydrolysis resistance compared to standard Makroblend UT grades, injection molding grade. Good low-temperature impact strength, flowability, and chemical resistance. Applications include lead-acid battery housings.

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	270 °C	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
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2200
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	4.9
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	110
Stress at break	50 mm/min	MPa	ISO 527-1,-2	57
Flexural modulus	2 mm/min	MPa	ISO 178	2200
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	68
Flexural strength	2 mm/min	MPa	ISO 178	82
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	65
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	35
C Puncture maximum force	23 °C	N	ISO 6603-2	4300
C Puncture maximum force	-30 °C	N	ISO 6603-2	5300
C Puncture energy	23 °C	J	ISO 6603-2	45
C Puncture energy	-30 °C	J	ISO 6603-2	47
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 7391/b.o. ISO 180-A	60
Izod notched impact strength	-30 °C	kJ/m ²	ISO 7391/b.o. ISO 180-A	40
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	102
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	137
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.75
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.75
C Burning behavior UL 94 (1.5 mm)		Class	UL 94	HB (Bayer Test)
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB (Bayer Test)
Thermal conductivity, cross-flow	23 °C; 50 % r. h.	W/(m·K)	ISO 8302	0.2
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	0.16
C Density		kg/m ³	ISO 1183-1	1215



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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	270
C Injection molding-Mold temperature		°C	ISO 294	70

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

