

Makroblend® AR205

/ (PC+PET) blend, easy flow, impact modified; application: automotive body panels

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	270 °C; 5 kg	cm ³ /10 min	ISO 1133	38
Melt viscosity	1000 s ⁻¹ ; 270 °C	Pa·s	b.o. ISO 11443-A	200
Molding shrinkage, parallel	150x105x3 mm; 270 °C / MT 70°C; 600 bar	%	b.o. ISO 2577	0.7 - 0.9
Molding shrinkage, normal	150x105x3 mm; 270 °C / MT 70°C; 600 bar	%	b.o. ISO 2577	0.7 - 0.9
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	54
C Yield strain	50 mm/min	%	ISO 527-1,-2	4.8
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	>50
Stress at break	50 mm/min	MPa	ISO 527-1,-2	48
Flexural modulus	2 mm/min	MPa	ISO 178	2200
Flexural strain at flexural strength	2 mm/min	%	ISO 178	5.8
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	68
Flexural strength	2 mm/min	MPa	ISO 178	80
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	45
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	20
C Puncture maximum force	23 °C	N	ISO 6603-2	3900
C Puncture maximum force	-30 °C	N	ISO 6603-2	5000
C Puncture energy	23 °C	J	ISO 6603-2	42
C Puncture energy	-30 °C	J	ISO 6603-2	48
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	45
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-A	20
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	98
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	126
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	138
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.81
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.82
Other properties (23 °C)				
C Density		kg/m ³	ISO 1183-1	1210
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