



Makrolon® 205 R50

Preliminary Datasheet /

polycarbonate; medium viscosity; easy release; non-reinforced; 50% post consumer recycle; injection molding; electrical/electronic

ISO Shortname

PC (REC)

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	280 °C/ 5 kg	cm³/10 min	ISO 1133	36
Melt volume-flow rate	300 °C/ 1.2 kg	cm³/10 min	ISO 1133	16
C Molding shrinkage, normal	60x60x2 mm	%	ISO 294-4	0.68
Molding shrinkage, parallel/normal	Value range based on general practical experience	%	b.o. ISO 2577	0.71
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2300
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	60
C Yield strain	50 mm/min	%	ISO 527-1,-2	6.0
Stress at break	50 mm/min	MPa	ISO 527-1,-2	57
Strain at break	50 mm/min	%	b.o. ISO 527-1,-2	100
Flexural modulus	2 mm/min	MPa	ISO 178	2460
Flexural strength	2 mm/min	MPa	ISO 178	97
Flexural strain at flexural strength	2 mm/min	%	ISO 178	6.9
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	77
Izod notched impact strength	23 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	63
Izod notched impact strength	0 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	17
Izod notched impact strength	-10 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	15
Izod impact strength	23 °C	kJ/m²	ISO 180/U	NB
Izod impact strength	-30 °C	kJ/m²	ISO 180/U	NB
Thermal properties				
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	144
Material specific properties				
C Luminous transmittance (clear transparent materials)	2 mm	%	ISO 13468-2	87
Recommended processing and drying conditions				
Melt temperatures		°C	-	280 - 320
Mold Temperatures		°C	-	80 - 120
Dry Air Drying Temperature		°C	-	120
Dry Air Drying Time		h	-	4
Moisture Content max. (%)		%	-	0.02

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

