



Makrolon® FR6017 R50

Preliminary Datasheet /

polycarbonate; medium viscosity; easy release; UV stabilized; non-reinforced; flame retardant; impact modified; contains 50% post consumer PC recycle for natural color; injection molding; electrical/electronic; Information technology

ISO Shortname

PC (REC)

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	300 °C/ 1.2 kg	cm³/10 min	ISO 1133	10
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	60
C Yield strain	50 mm/min	%	ISO 527-1,-2	6.0
Stress at break	50 mm/min	MPa	ISO 527-1,-2	64
Strain at break	50 mm/min	%	b.o. ISO 527-1,-2	120.0
Flexural modulus	2 mm/min	MPa	ISO 178	2300
Flexural strength	2 mm/min	MPa	ISO 178	93
Flexural strain at flexural strength	2 mm/min	%	ISO 178	6.7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	73
Charpy notched impact strength	23 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 179/1eA	72
Charpy notched impact strength	-30 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 179/1eA	36
Izod notched impact strength	23 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	66
Izod notched impact strength	-10 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	56
Izod notched impact strength	-30 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	25
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	121
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	136
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	142
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	144
C Burning behavior UL 94 [UL recognition]	1.5 mm	Class	UL 94	V-0
Recommended processing and drying conditions				
Melt temperatures		°C	-	280 - 320
Mold Temperatures		°C	-	80 - 120
Dry Air Drying Temperature		°C	-	120
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

