



Makrolon® M402 LF

Preliminary Datasheet /

polycarbonate; MVR (300 °C/1.2 kg) 19 cm³/10 min; low viscosity; improved friction characteristics; biocompatible according to many ISO 10993-1 test requirements; available in opaque colors only; suitable for medical devices

ISO Shortname

PC

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
Melt volume-flow rate	300 °C/ 1.2 kg	cm³/10 min	ISO 1133	19
C Molding shrinkage, parallel	60x60x2 mm	%	ISO 294-4	0.7
C Molding shrinkage, normal	60x60x2 mm	%	ISO 294-4	0.7
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2150
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	60
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	>50
Izod notched impact strength	23 °C/ 3 mm	kJ/m²	ISO 21305/based on ISO 180/A	60
Thermal properties				
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	144
Other properties (23 °C)				
C Density		kg/m³	ISO 1183-1	1200
Recommended processing and drying conditions				
Melt temperatures		°C	-	280 - 320
Standard Melt temperature		°C	-	300
Barrel Temperatures - Rear		°C	-	250 - 270
Barrel Temperatures - Middle		°C	-	270 - 290
Barrel Temperatures - Front		°C	-	285 - 305
Barrel Temperatures - Nozzle		°C	-	270 - 305
Mold Temperatures		°C	-	70 - 110
Hold Pressure (% of injection pressure)		%	-	50 - 75
Plastic Back Pressure (specific)		bar	-	100 - 200
Peripheral Screw Speed		m/s	-	0.05 - 0.2
Shot-to-Cylinder Size		%	-	30 - 70
Dry Air Drying Temperature		°C	-	120
Dry Air Drying Time		h	-	4
Moisture Content max. (%)		%	-	<=0.02
Vent Depth		mm	-	0.025 - 0.075

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

