



Makrolon® FP3087

Special grades / High viscosity

MVR (300 °C/1.2 kg) 7.0 cm³/10 min; high viscosity

ISO Shortname

ISO 1043: PC

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
Melt volume-flow rate	300 °C/ 1.2 kg	cm³/10 min	ISO 1133	7.0
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2350
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	66
C Yield strain	50 mm/min	%	ISO 527-1,-2	6.0
Stress at break	50 mm/min	MPa	ISO 527-1,-2	75
Strain at break	50 mm/min	%	b.o. ISO 527-1,-2	125
Izod notched impact strength	23 °C	kJ/m²	ISO 21305/based on ISO 180/A	75
Izod notched impact strength	-20 °C	kJ/m²	ISO 21305/based on ISO 180/A	14
C Puncture impact properties - maximum force	23 °C	N	ISO 6603-2	5700
C Puncture impact properties - maximum force	-30 °C	N	ISO 6603-2	6500
C Puncture energy	23 °C	J	ISO 6603-2	62
C Puncture energy	-30 °C	J	ISO 6603-2	67
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	122
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	142
Processing conditions for test specimens				
C Injection molding - Melt temperature		°C	ISO 294	300
C Injection molding - Mold temperature		°C	ISO 294	80
C Injection molding - Injection velocity		mm/s	ISO 294	200
Recommended processing and drying conditions				
Melt temperatures		°C	-	280 - 320
Standard Melt temperature		°C	-	300
Barrel Temperatures - Rear		°C	-	250 - 260
Barrel Temperatures - Middle		°C	-	270 - 280
Barrel Temperatures - Front		°C	-	280 - 290
Barrel Temperatures - Nozzle		°C	-	290 - 300
Mold Temperatures		°C	-	80 - 120
Hold Pressure (% of injection pressure)		%	-	50 - 75
Plastic Back Pressure (specific)		bar	-	50 - 150
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	-	2-3
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

