

Makrolon® 3207

General purpose grades / High viscosity

MVR (300 °C/1.2 kg) 4.0 cm³/10 min; general purpose; high viscosity; UV stabilized; easy release; developed for safety goggles

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
Melt volume-flow rate	300 °C; 1.2 kg	cm³/10 min	ISO 1133	4.0
C Molding shrinkage, parallel	60x60x2 mm	%	ISO 294-4	0.73
C Molding shrinkage, normal	60x60x2 mm	%	ISO 294-4	0.73
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2270
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	62
C Yield strain	50 mm/min	%	ISO 527-1,-2	6.5
Nominal strain at break	5 mm/min	%	ISO 527-1,-2	> 50
C Strain at break	5 mm/min	%	ISO 527-1,-2	68
Flexural modulus	2 mm/min	MPa	ISO 178	2400
Flexural strength	2 mm/min	MPa	ISO 178	97
Flexural strain at flexural strength	2 mm/min	%	ISO 178	7.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	72
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	N
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	N
Charpy impact strength	-60 °C	kJ/m²	ISO 179-1eU	N
Izod notched impact strength	23 °C; 3 mm	kJ/m²	ISO 7391/b.o. ISO 180-A	75P
Izod notched impact strength	-20 °C; 3 mm	kJ/m²	ISO 7391/b.o. ISO 180-A	71P(C)
Izod notched impact strength	-30 °C; 3 mm	kJ/m²	ISO 7391/b.o. ISO 180-A	20C(P)
C Puncture maximum force	23 °C	N	ISO 6603-2	5715
C Puncture energy	23 °C	J	ISO 6603-2	60
Thermal properties				
C Glass transition temperature	10 °C/min	°C	ISO 11357-1,-2	151
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	130
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	141
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	149
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	150
Other properties (23 °C)				
C Density		kg/m³	ISO 1183-1	1190
Material specific properties				
Haze for transparent materials	3 mm	%	ISO 14782	0.2
Luminous transmittance (clear transparent materials)	1 mm	%	ISO 13468-2	89
C Luminous transmittance (clear transparent materials)	2 mm	%	ISO 13468-2	89
Luminous transmittance (clear transparent materials)	3 mm	%	ISO 13468-2	88
Luminous transmittance (clear transparent materials)	4 mm	%	ISO 13468-2	88

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