



Makrolon® RW2405

Grades / Special grades

MVR (300 °C/1.2 kg) 19 cm³/10 min; low viscosity; easy release; variable content of filler for high reflectance application; injection molding

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	19
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2500 - 2700
Yield stress	5 mm/min	MPa	ISO 527-1,-2	60
Yield strain	5 mm/min	%	ISO 527-1,-2	5.5
Nominal strain at break	5 mm/min	%	ISO 527-1,-2	>50
C Stress at break	5 mm/min	MPa	ISO 527-1,-2	50 - 60
C Strain at break	5 mm/min	%	ISO 527-1,-2	80 - 110
C Charpy impact strength	23 °C	kJ/m²	ISO 179/1eU	N
Izod notched impact strength	23 °C	kJ/m²	ISO 21305/based on ISO 180/A	15 (C)
C Puncture impact properties - maximum force	23 °C	N	ISO 6603-2	4800 - 5100
C Puncture energy	23 °C	J	ISO 6603-2	43 - 50
Thermal properties				
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	144
C Burning behavior UL 94 (1.5 mm) [UL recognition]		Class	UL 94	V-2 (WT)
C Burning behavior UL 94 [UL recognition]	3.0 mm	Class	UL 94	HB (WT)
Burning behavior UL 94 [UL recognition]	0.75 mm	Class	UL 94	V-2 (WT)
Burning behavior UL 94 [UL recognition]	2.7 mm	Class	UL 94	HB (WT)
Relative temperature index (Tensile strength) [UL recognition]	1.5 mm	°C	UL 746B	125
Relative temperature index (Tensile impact strength) [UL recognition]	1.5 mm	°C	UL 746B	115
Relative temperature index (Electric strength) [UL recognition]	1.5 mm	°C	UL 746B	125
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	850
Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960
Other properties (23 °C)				
C Density		kg/m³	ISO 1183-1	1240 - 1340
Material specific properties				
Light reflection	4 mm	%	JIS 8722	96 - 97
Processing conditions for test specimens				
C Injection molding - Melt temperature		°C	ISO 294	280
C Injection molding - Mold temperature		°C	ISO 294	80





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Property	Test Condition	Unit	Standard	typical Value
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

