

Makrolon® M404 LF

 Covestro - Polycarbonates - *Polycarbonate*
General Information
Product Description

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

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Biocompatible	• Low Friction	• Low Viscosity
Uses	• Medical Devices	• Medical/Healthcare Applications	
Agency Ratings	• ISO 10993-1	• USP Class VI	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Opaque	
Processing Method	• Injection Molding		
ISO Designation	• PC		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	19	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	0.70	%	
Flow : 0.0787 in	0.70	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	305000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8700	psi	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength ³ (73°F)	29	ft·lb/in ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	291	°F	ISO 306/B120

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Dry Air Dryer	248	°F
Drying Time - Dry Air Dryer	4.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	482 to 518	°F
Middle Temperature	518 to 554	°F
Front Temperature	545 to 581	°F
Nozzle Temperature	518 to 581	°F
Processing (Melt) Temp	536 to 608	°F
Mold Temperature	158 to 230	°F
Back Pressure	1450 to 2900	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes


Standard Melt Temperature: 300°C
Peripheral Screw Speed: 0.05 - 0.2 m/s
Hold Pressure (% of Injection Pressure): 50 - 75%

Notes

¹ Typical properties: these are not to be construed as specifications.

² 60x60x2mm

³ 3.0 mm

