



# Makrolon 2407

## General purpose grades / Low viscosity / High productivity

Global grade; MFR 20 g/10 min; General purpose; Low viscosity; UV stabilized; Easy release; Injection molding; Available in transparent, translucent and opaque colors

## ISO Shortname

ISO 7391-PC,MLR,49-18-9

Property	Test Condition	Unit	Standard	Value
<b>Rheological properties</b>				
Melt flow rate	300 °C / 1.2 kg	g/(10 min)	ASTM D 1238	20
Mold shrinkage, flow/cross to flow		in/in	ASTM D 955	0.005-0.007
<b>Mechanical properties (23 °C/50 % r.h.)</b>				
Tensile modulus	1 mm/min	lb/in <sup>2</sup>	ASTM D 638	350000
Tensile stress at yield	-	lb/in <sup>2</sup>	ASTM D 638	9400
Tensile elongation at yield	-	%	ASTM D 638	6.0
Tensile elongation at break	-	%	ASTM D 638	115
Tensile stress at break	-	lb/in <sup>2</sup>	ASTM D 638	8700
Izod notched impact strength	73 °F, 0.125 in	ft-lb/in	ASTM D 256	14
Flexural modulus	-	lb/in <sup>2</sup>	ASTM D 790	340000
Flexural stress at 5 % strain		lb/in <sup>2</sup>	ASTM D 790	12000
Rockwell hardness		M Scale	ASTM D 785	75
Rockwell hardness		R Scale	ASTM D 785	120
<b>Thermal properties</b>				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	259
Deflection temperature under load, Unannealed	66 psi; 0.250 in	°F	ASTM D 648	273
Vicat softening temperature	50 N, 50 °C/h	°F	ASTM D 1525	291
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	3.34E-05
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	V-2
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	HB
UL94 Flame Class	Thickness tested: 6.0 mm	Class	UL 94	HB
Oxygen index		%	ASTM D 2863	28
Thermal conductivity		Btu*in/(h*ft <sup>2</sup> *°F)	ASTM C 177	1.39
Specific heat		Btu/(lb*°F)	ASTM D 2766	0.28
Relative temperature index, mechanical with impact	Thickness tested: 1.5 mm	°C	UL 746 B	115
Relative temperature index, mechanical without impact	Thickness tested: 1.5 mm	°C	UL 746 B	125
Relative temperature index, electrical	Thickness tested: 1.5 mm	°C	UL 746 B	125
<b>Electrical properties (23 °C/50 % r.h.)</b>				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.0008
Dissipation factor, Tinfoil electrodes	1 MHz	-	ASTM D 150	0.01
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	3.0
Dielectric constant, Tinfoil electrodes	1 MHz	-	ASTM D 150	2.9
Volume resistivity, Tinfoil electrodes		Ohm-m	ASTM D 257	1.0 E+14
Surface resistivity		Ohm	ASTM D 257	1.0 E+16
Dielectric strength	Short time under oil at 73 °F; 0.162 in	V/mil	ASTM D 149	810
<b>Other properties (23 °C)</b>				
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	0.3
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	0.12
Density		lb/in <sup>3</sup>	ASTM D 792	0.043
Specific volume		in <sup>3</sup> /lb	ASTM D 792	23.1
Specific gravity		-	ASTM D 792	1.2
<b>Material specific properties</b>				
Refractive index		-	ASTM D 542	1.586
Luminous transmittance (clear transparent materials)	0.125 in	%	ASTM D 1003	88
Haze for transparent materials	0.125 in	%	ASTM D 1003	< 0.8



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### Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

### Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

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