



Makrolon 8315

Glass fiber reinforced grades / 10 % Glass fiber reinforced

MFR 7 g/10 min; 10% Glass fiber reinforced; High viscosity; Easy release; Injection molding; Available in opaque colors only

ISO Shortname

ISO 7391-PC,GR,(,)-09-9,GF10

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Melt flow rate	300 °C / 1.2 kg	g/(10 min)	ASTM D 1238	7.5
Mold shrinkage, flow/cross to flow		in/in	ASTM D 955	0.003 -0.004
Mechanical properties (23 °C/50 % r.h.)				
Tensile modulus	1 mm/min	lb/in ²	ASTM D 638	500000
Tensile stress at yield	-	lb/in ²	ASTM D 638	8700
Tensile elongation at yield	-	%	ASTM D 638	4.0
Tensile elongation at break	-	%	ASTM D 638	10
Tensile stress at break	-	lb/in ²	ASTM D 638	6500
Izod notched impact strength	73 °F, 0.125 in	ft-lb/in	ASTM D 256	2.0
Flexural modulus	-	lb/in ²	ASTM D 790	500000
Flexural stress at 5 % strain		lb/in ²	ASTM D 790	15000
Rockwell hardness		M Scale	ASTM D 785	50
Thermal properties				
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	275
Deflection temperature under load, Unannealed	66 psi; 0.250 in	°F	ASTM D 648	288
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	2.5 E-05
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	HB
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	V-2
UL94 Flame Class	Thickness tested: 6.0 mm	Class	UL 94	V-2
Oxygen index		%	ASTM D 2863	26
Relative temperature index, mechanical with impact	Thickness tested: 1.5 mm	°C	UL 746 B	120
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
Electrical properties (23 °C/50 % r.h.)				
Dissipation factor, Tinfoil electrodes	60 Hz	-	ASTM D 150	0.0012
Dissipation factor, Tinfoil electrodes	1 MHz	-	ASTM D 150	0.0077
Dielectric constant, Tinfoil electrodes	60 Hz	-	ASTM D 150	3.2
Dielectric constant, Tinfoil electrodes	1 MHz	-	ASTM D 150	3.0
Volume resistivity, Tinfoil electrodes		Ohm-m	ASTM D 257	>3.8E+14
Dielectric strength	Short time under oil at 73 °F; 0.162 in	V/mil	ASTM D 149	530
Other properties (23 °C)				
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	0.32
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	0.15
Density		lb/in ³	ASTM D 792	0.046
Specific volume		in ³ /lb	ASTM D 792	21.8
Specific gravity		-	ASTM D 792	1.27

