

Technical Information



ALTUGLAS™ R-Life VML CLR CR50

Overview

ALTUGLAS™ R-life VML CLR CR50 is a very high quality PMMA resin containing 50% of recycled monomer. It is a high flow lubricated molding resin suitable for injection molding of complex parts. It is lubricated for easy feeding and demolding.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	14 g/10 min	14 g/10 min	ISO 1133
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3 in/in	0.20 to 0.60 %	ASTM D955
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.30 %	0.30 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Break, 73°F (23°C))	8700 psi	60.0 MPa	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	4.0 %	4.0 %	ISO 527-2/5
Flexural Modulus (73°F (23°C))	435000 psi	3000 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	0.95 ft-lb/in ²	2.0 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
73°F (23°C)	9.0 ft-lb/in ²	19 kJ/m ²	
Notched Izod Impact Strength (73°F (23°C))	0.95 ft-lb/in ²	2.0 kJ/m ²	ISO 180/1A
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	88	88	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Annealed	189 °F	87.0 °C	
Vicat Softening Temperature	> 196 °F	> 91.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index ¹	1.490	1.490	ISO 489
Light Transmittance (78.74 mil (2000 µm))	92.0 %	92.0 %	ASTM D1003
Haze	< 1.00 %	< 1.00 %	ASTM D1003
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	158 °F	70 °C	
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr	
Rear Temperature	374 to 410 °F	190 to 210 °C	
Middle Temperature	392 to 428 °F	200 to 220 °C	
Front Temperature	428 to 464 °F	220 to 240 °C	
Nozzle Temperature	428 to 464 °F	220 to 240 °C	
Processing (Melt) Temp	428 to 464 °F	220 to 240 °C	
Mold Temperature	122 to 140 °F	50 to 60 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Method B

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