Technical Information

TRINSEO™

ALTUGLAS™ R-Life VML-H CR50

Overview

PRELIMINARY Datasheet

ALTUGLAS™ R-life VML-H CR50 is a very high quality PMMA resin containing 50% of recycled monomer.

It is a very 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/cm³	1.18	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	18	g/10 min	18	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/in²	2.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength					ISO 179/1eU
73°F (23°C)	9.0	ft·lb/in²	19	kJ/m²	
Notched Izod Impact Strength (73°F (23°C))	0.95	ft·lb/in²	2.0	kJ/m²	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	181	°F	83.0	°C	
Vicat Softening Temperature	> 190	°F	> 88.0	°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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