



Hylex® P1010L

Ravago Manufacturing Americas, LLC - Polycarbonate

Monday, 12 August 2013

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Features	• General Purpose • Good Flow • Good Mold Release
Uses	• General Purpose
Agency Ratings	• FDA 21 CFR 177.1580
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792
Melt Mass-Flow Rate (300°C/1.2 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (23°C)	69.6	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	120	%	ASTM D638
Flexural Modulus (23°C)	2340	MPa	ASTM D790
Flexural Strength (23°C)	93.1	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	800	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	80		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	141	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed	132	°C	ASTM D648
Vicat Softening Temperature	154	°C	ASTM D1525
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.0E+16	ohm·cm	ASTM D257
Dielectric Strength (3.18 mm, in Air)	16	kV/mm	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.508 mm)	V-2		UL 94
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.585		ASTM D542
Transmittance (3180 µm)	89.0 to 91.0	%	ASTM D1003
Haze (3180 µm)	0.50 to 0.80	%	ASTM D1003

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	121	°C
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	12	hr
Dew Point	< -28.9	°C
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 60	%
Rear Temperature	271 to 282	°C
Middle Temperature	277 to 288	°C
Front Temperature	282 to 299	°C
Nozzle Temperature	277 to 299	°C
Processing (Melt) Temp	288 to 316	°C
Mold Temperature	76.7 to 93.3	°C
Injection Pressure	6.89 to 12.4	MPa
Holding Pressure	4.83 to 8.27	MPa
Back Pressure	0.483 to 1.03	MPa
Screw Speed	40 to 70	rpm

Injection Notes

Pressures given are in the hydraulic circuit.

Drying time should not exceed 12 hours to avoid excessive heat history.

Drying time is 5 to 6 hours with regrind.

Air throughout minimum of 1 CFM/lb resin/hr.

Notes

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