



Hylex® P1010G20 HB

Ravago Manufacturing Americas, LLC - Polycarbonate

Wednesday, 25 August 2010

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber Reinforcement, 20% Filler by Weight
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.35		ASTM D792
Melt Mass-Flow Rate (300°C/1.2 kg)	9.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.0010 to 0.0030	in/in	ASTM D955
Water Absorption (24 hr)	0.13	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (73°F)	16000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	5.0	%	ASTM D638
Flexural Modulus (73°F)	750000	psi	ASTM D790
Flexural Strength (Break, 73°F)	20000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	2.00	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	91		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	300	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed	295	°F	ASTM D648
Vicat Softening Temperature	330	°F	ASTM D1525
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.0E+16	ohm·cm	ASTM D257
Dielectric Strength (73°F, 0.125 in, In Air)	450	V/mil	ASTM D149
Arc Resistance	120	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (0.0590 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	4.0 to 6.0	hr
Drying Time, Maximum	12	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 60	%
Rear Temperature	550 to 570	°F

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Injection	Nominal Value	Unit
Middle Temperature	560 to 600	°F
Front Temperature	580 to 620	°F
Nozzle Temperature	580 to 620	°F
Processing (Melt) Temp	600 to 640	°F
Mold Temperature	190 to 250	°F
Injection Pressure	1400 to 2000	psi
Holding Pressure	1000 to 1400	psi
Back Pressure	60.0 to 180	psi
Screw Speed	60 to 80	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 6 to 8 hours with regrind.
Dew point of circulating air to be less than -20°F at hopper inlet.
Air throughout minimum of 1 CFM/lb resin/hr.

Notes

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