Optix® CA-924 G

Plaskolite, Inc. - Polymethyl Methacrylate Acrylic

Sunday, November 3, 2019

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Electrically Insulating • Good Impact Resistance	• Good Weather Resistance • Machinable	• Radiation Sterilizable
Uses	• Medical/Healthcare Applications		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.17		ASTM D792
Melt Mass-Flow Rate (230°C/3.8 kg)	6.3	g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	472000	psi	ASTM D638
Tensile Strength (Yield)	8470	psi	ASTM D638
Tensile Elongation (Yield)	4.5	%	ASTM D638
Flexural Modulus	370000	psi	ASTM D790
Flexural Strength (Yield)	12500	psi	ASTM D790
Compressive Strength	12000	psi	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	0.80	ft·lb/in	ASTM D256
Gardner Impact	14.0	in·lb	ASTM D3029
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	68		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	182	°F	
Vicat Softening Temperature	233	°F	ASTM D1525
RTI Elec (0.06 in)	122	°F	UL 746
RTI Imp (0.06 in)	122	°F	UL 746
RTI Str (0.06 in)	122	°F	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength	380	V/mil	ASTM D149
Dielectric Constant			ASTM D150
1 kHz	3.14		
1 MHz	2.44		
Dissipation Factor			ASTM D150
1 kHz	0.041		
1 MHz	0.030		

Optix® CA-924 G

Plaskolite, Inc. - Polymethyl Methacrylate Acrylic

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ASTM D542
Transmittance	91.6	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	350 to 450	°F
Middle Temperature	380 to 480	°F
Front Temperature	400 to 500	°F
Nozzle Temperature	380 to 480	°F
Processing (Melt) Temp	420 to 480	°F
Mold Temperature	110 to 190	°F
Injection Pressure	10000 to 20000	psi
Back Pressure	50.0 to 150	psi
Screw Speed	50 to 100	rpm
Clamp Tonnage	10	tons/in²

Notes

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