



Optix® CP-71

Plaskolite, Inc. - Polymethyl Methacrylate Acrylic

Sunday, November 3, 2019

General Information

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Chemical Resistant • Electrically Insulating • Good Dimensional Stability • Good Impact Resistance • Good Processability	• Good Weather Resistance • High Clarity • High Heat Resistance • Low Odor • Low to No Taste	• Machinable • Medium Flow • Medium Molecular Weight
Automotive Specifications	• CHRYSLER MS-DB-14 CPN1885 Color: Clear • CHRYSLER MS-DB-14 Type D CPN1914 Color: Red • CHRYSLER MS-DB-75 CPN4232 Color: Non-matched Color	• GM GMP.PMMA.002 • GM GMP.PMMA.012 • GM GMW16335P-PMMA-T3 Color: Clear	• IMDS ID 503192724 • SAE J576
Appearance	• Colors Available		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (230°C/3.8 kg)	3.9	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	470000	psi	ASTM D638
Tensile Strength	9800	psi	ASTM D638
Tensile Elongation (Break)	3.1	%	ASTM D638
Flexural Modulus	447000	psi	ASTM D790
Flexural Strength	14700	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	0.40	ft-lb/in	ASTM D256
Unnotched Izod Impact	5.3	ft-lb/in	ASTM D256
Gardner Impact	3.00	in-lb	ASTM D3029
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	90		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	206	°F	ASTM D648
Vicat Softening Temperature	225	°F	ASTM D1525
CLTE - Flow (-22 to 86°F)	3.4E-5	in/in/°F	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94

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Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ASTM D542
Transmittance	92.0	%	ASTM D1003
Haze	1.00	%	ASTM D1003

Additional Information			
Burn Rate, ASTM D635: 2.2 in/min			

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	150 to 165	°F	
Rear Temperature	390 to 470	°F	
Middle Temperature	400 to 480	°F	
Front Temperature	410 to 490	°F	
Nozzle Temperature	400 to 490	°F	
Processing (Melt) Temp	400 to 490	°F	
Mold Temperature	120 to 165	°F	

Injection Notes			
Heated Manifold: 400-480°F			
Heated Drop (Sprue): 400-480°F			

Notes

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