

# Optix® CP-1000I

Polymethyl Methacrylate Acrylic  
Plaskolite West, Inc.

Message:

Optix® CP-1000I is a polymethyl methacrylate-acrylic acid product. It can be processed by injection molding and is available in North America or Europe. Typical application areas are: automotive industry.  
Features include:  
flame retardant/rated flame  
odorless/tasteless channel  
Good processability  
insulation  
Good dimensional stability

General Information			
UL YellowCard	E167330-100061595		
Features	Good dimensional stability		
	Insulation		
	Impact resistance, good		
	Workability, good		
	Machinable		
	Low liquidity		
	Good chemical resistance		
	Good weather resistance		
	The smell is low to none		
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	Definition, high		
Appearance	Available colors		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.16	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.7	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60	%	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	36		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1860	MPa	ASTM D638
Tensile Strength	42.1	MPa	ASTM D638
Tensile Elongation (Break)	37	%	ASTM D638
Flexural Modulus	1790	MPa	ASTM D790

Flexural Strength	61.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	64	J/m	ASTM D256
Unnotched Izod Impact	990	J/m	ASTM D256
Dart Drop Impact	5.88	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	82.2	°C	ASTM D648
Vicat Softening Temperature	99.4	°C	ASTM D1525
CLTE - Flow (-30 to 30°C)	8.1E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ASTM D542
Transmittance	91.0	%	ASTM D1003
Haze	2.0	%	ASTM D1003
Additional Information			
Thermal Index, UL-746 ABC: 90°CBurn Rate, ASTM D635: 1.7 in/min			
Injection	Nominal Value	Unit	
Drying Temperature	65.6 - 73.9	°C	
Rear Temperature	204 - 249	°C	
Middle Temperature	210 - 254	°C	
Front Temperature	216 - 260	°C	
Nozzle Temperature	210 - 260	°C	
Processing (Melt) Temp	210 - 249	°C	
Mold Temperature	48.9 - 79.4	°C	
Injection instructions			
Heated Manifold: 410-480°FHeated Drop (Sprue): 410-480°F			

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#### Recommended distributors for this material

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