

# Optix® CP-927HF

Polymethyl Methacrylate Acrylic

Plaskolite West, Inc.

Message:

Optix® CP-927HF is a polymethyl methacrylate-acrylic acid product. It can be processed by injection molding and is available in North America or Europe. Features include:  
flame retardant/rated flame  
odorless/tasteless channel  
high liquidity  
Good processability  
insulation

General Information			
Features	Good dimensional stability		
	Insulation		
	Impact resistance, good		
	Workability, good		
	Machinable		
	High 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)	11	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)	53		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2000	MPa	ASTM D638
Tensile Strength	50.3	MPa	ASTM D638
Tensile Elongation (Break)	18	%	ASTM D638
Flexural Modulus	2140	MPa	ASTM D790
Flexural Strength	75.8	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact	53	J/m	ASTM D256
Unnotched Izod Impact	670	J/m	ASTM D256
Dart Drop Impact	2.82	J	ASTM D3029
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (1.8 MPa, Unannealed)	77.8	°C	ASTM D648
Vicat Softening Temperature	93.3	°C	ASTM D1525
CLTE - Flow (-30 to 30°C)	7.5E-5	cm/cm/°C	ASTM D696
<b>Flammability</b>	<b>Nominal Value</b>		<b>Test Method</b>
Flame Rating	HB		UL 94
<b>Optical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Refractive Index	1.490		ASTM D542
Transmittance	91.0	%	ASTM D1003
Haze	2.0	%	ASTM D1003
<b>Additional Information</b>			
Burn Rate, ASTM D635: 1.7 in/min			
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
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	
<b>Injection instructions</b>			

Heated Manifold: 410-480°FHeated Drop (Sprue): 410-480°F

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#### Recommended distributors for this material

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