Plexiglas® HFI10G

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

Message:

Plexiglas® HFI10G is an impact modified thermoplastic acrylic resin formulated for injection molding. This grade is formulated for approved medical applications and has improved gamma resistance compared to HFI10. It has high melt flow, enhanced mold release properties and provides 10 times the impact resistance of standard acrylics while maintaining excellent optical properties.

General Information	
Additive	Impact Modifier
Features	BPA Free
	E-beam Sterilizable
	Ethylene Oxide Sterilizable
	Good Color Stability
	Good Dimensional Stability
	Good Thermal Stability
	Good Toughness
	Good UV Resistance
	Good Weather Resistance
	High Clarity
	High Flow
	High Impact Resistance
	Impact Modified
	Low Shrinkage
	Radiation (Gamma) Resistant
	Scratch Resistant
Uses	Medical Devices
	Medical/Healthcare Applications
Agency Ratings	USP Class VI
RoHS Compliance	RoHS Compliant
Appearance	Clear/Transparent
Forms	Pellets
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.15	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.3	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 to 0.80	%	ASTM D955
Water Absorption (24 hr)	0.40	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method

Rockwell Hardness (M-Scale)	38		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1860	MPa	ASTM D638
Tensile Strength (Yield)	37.9	MPa	ASTM D638
Tensile Elongation (Break)	50	%	ASTM D638
Flexural Modulus	1860	MPa	ASTM D790
Flexural Strength (Yield)	71.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	48	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load [1]			ASTM D648
0.45 MPa, Annealed	88.9	°C	
1.8 MPa, Annealed	79.4	°C	
Vicat Softening Temperature			
--	93.9	°C	ASTM D1525 [2]
--	82.8	°C	ASTM D1525 [3]
Thermal Conductivity	0.22	W/m/K	ASTM C177
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94
Optical	Nominal Value	Unit	Test Method
Refractive Index [4]	1.490		ASTM D542
Transmittance (3180 µm)	90.0	%	ASTM D1003
Haze (3180 µm)	< 1.0	%	ASTM D1003
Additional Information	Nominal Value		Test Method
ASTM Classification	PMMA 0231V3		ASTM D788
Injection	Nominal Value	Unit	
Drying Temperature	79.4	°C	
Drying Time	3.0 to 4.0	hr	
Rear Temperature	227 to 249	°C	
Middle Temperature	238 to 260	°C	
Front Temperature	232 to 254	°C	
Nozzle Temperature	232 to 254	°C	
Processing (Melt) Temp	243 to 266	°C	
Mold Temperature	32.2 to 76.7	°C	
Screw Speed	50 to 100	rpm	
NOTE			
1.	Annealing cycle: 4hrs @ 176°F		
2.	Rate A (50°C/h), Loading 1 (10 N)		
3.	Rate A (50°C/h), Loading 2 (50 N)		
4.	ND @ 72°F		

infringement occurs, please contact us immediately.

Recommended distributors for this material

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