Plexiglas® HT121

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

Message:

Plexiglas® HT121 is a thermoplastic acrylic resin formulated for injection molding applications. This grade has the highest heat resistance of all the Plexiglas® grades. Plexiglas® HT121 has excellent weatherability and optical properties allowing it to excel in applications requiring outdoor stability, high quality surface appearance and/or precision optics. It has excellent resistance to many chemicals including solutions of inorganic acids, alkalis and aliphatic hydrocarbons such as VM&P naphtha and heptane. Additionally, it is virtually unaffected by a wide range of commercial products including many beverages, foodstuffs, detergent solutions and cleaners.

General Information	
Features	BPA Free
	Good Color Stability
	Good Dimensional Stability
	Good Thermal Stability
	Good UV Resistance
	Good Weather Resistance
	High Clarity
	High Heat Resistance
	High Scratch Resistance
	Low Shrinkage
Uses	Automotive Applications
	Lighting Diffusers
Agency Ratings	FDA 21 CFR 177.1010
RoHS Compliance	RoHS Compliant
Appearance	Clear/Transparent
	Colors Available
	Opaque
	Translucent
Forms	Pellets
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.6	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D955
Water Absorption (24 hr)	0.40	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	99		ASTM D785

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3280	MPa	ASTM D638
Tensile Strength (Break)	70.3	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	3280	MPa	ASTM D790
Flexural Strength (Yield)	105	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	16	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [1]			ASTM D648
0.45 MPa, Annealed	113	°C	
1.8 MPa, Annealed	108	°C	
Vicat Softening Temperature			
--	119	°C	ASTM D1525 [2]
--	116	°C	ASTM D1525 [3]
Thermal Conductivity	0.19	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)	92.0	%	ASTM D1003
Haze (3180 µm)	< 1.0	%	ASTM D1003
Additional Information	**Nominal Value**		**Test Method**
ASTM Classification	PMMA 0141V2		ASTM D788
NOTE			
1.	Annealing cycle: 4hrs @ 221°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		

Recommended distributors for this material

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