Plexiglas® V920-UVT

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

Message:

Plexiglas® V920-UVT is a General-purpose thermoplastic acrylic resin formulated for injection molding and extrusion applications. It is a high flow resin designed to provide exceptional UV transmission and excellent transparency. Plexiglas® V920-UVT is easy to process due to its exceptional thermal stability, extrusion melt strength, and excellent tool surface reproduction and release properties. 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	
UL YellowCard	E39437-231442
Features	BPA Free
	Good Color Stability
	Good Dimensional Stability
	Good Thermal Stability
	Good Weather Resistance
	High Clarity
	High Scratch Resistance
	Low Shrinkage
Uses	Medical/Healthcare Applications
RoHS Compliance	RoHS Compliant
Appearance	Clear/Transparent
Forms	Pellets
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	90		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3100	MPa	ASTM D638
Tensile Strength (Yield)	68.9	MPa	ASTM D638
Tensile Elongation (Break)	5.0	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength (Yield)	103	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	92.8	°C	
1.8 MPa, Annealed	90.6	°C	
Vicat Softening Temperature			
--	100	°C	ASTM D1525 [2]
--	91.1	°C	ASTM D1525 [3]
Thermal Conductivity	0.19	W/m/K	ASTM C177
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 0122V4		ASTM D788
Injection	**Nominal Value**	**Unit**	
Drying Temperature	79.4 to 87.8	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.10	%	
Suggested Shot Size	50	%	
Suggested Max Regrind	20	%	
Rear Temperature	204	°C	
Middle Temperature	210	°C	
Front Temperature	216	°C	
Nozzle Temperature	210	°C	
Processing (Melt) Temp	< 271	°C	
Mold Temperature	65.6 to 85.0	°C	
Injection Rate	Fast		
Back Pressure	0.689	MPa	
Screw Speed	50 to 100	rpm	
Screw L/D Ratio	15.0:1.0 to 20.0:1.0		
Screw Compression Ratio	2.0:1.0 to 2.5:1.0		
Vent Depth	0.051	mm	
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		

Recommended distributors for this material

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