## 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

Notched Izod Impact (23°C)16J/mASTM D2ThermalNominal ValueUnitTest MettDeflection Temperature Under Load 1ASTM D60.45 MPa, Annealed92.8°C1.8 MPa, Annealed90.6°CVicat Softening Temperature100°C91.1°CThermal Conductivity0.19W/m/KASTM D1OpticalNominal ValueUnitTest MettRefractive Index 41.490Transmittance (3180 µm)92.0%ASTM D1ASTM D1Yange (3180 µm)ASTM D1Yange (3180 µm)ASTM D2Yange (3180 µm)PopicationNominal ValueDrying Temperature79.4 to 87.8°CPrimeDrying Temperature79.4 to 87.8Yange (200 Prime)PrimePrime79.4 to 87.8Yange (200 Prime)Yange (200 Pri	hod 48 525 <sup>2</sup> 525 <sup>3</sup> 77 hod 42 003 003
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InjectionNominal ValueUnitDrying Temperature79.4 to 87.8°C	100
Drying Temperature 79.4 to 87.8 °C	88
Device Time 40	
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	

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