# Provista™ Copolymer MP001

## Thermoplastic Polyester

#### Eastman Chemical Company

#### Message:

Eastman Provista™ Copolymer MP001 is a resin specifically developed for extrusion into profiles where aesthetics such as high clarity and gloss, coupled with design flexibility, drive demand. Compared to commonly used materials, Eastman Provista™ copolymer runs on most standard processing equipment at increased speeds. An extremely high melt strength makes the resin an excellent choice when extruding profiles into complicated shapes. In addition to profile extrusion, Eastman Provista™ copolymer is an excellent choice for extrusion of rigid tubing. This product meets the biocompatibility requirements under FDA/ISO 10993 and USP Class 6, Plastics.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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General Information					
Features	Biocompatible				
	Good Melt Strength				
	High Clarity				
	High Gloss				
Uses	Medical/Healthcare Applications				
	Profiles				
	Tubing				
Agency Ratings	ISO 10993				
	USP Class VI				
Forms	Pellets				
Processing Method	Profile Extrusion				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.27	g/cm³	ASTM D792		
Color - b <sup>1</sup>	0.61		ASTM D2244		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale, 23°C)	106		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Strength			ASTM D638		
Yield, 23°C	50.0	МРа			
Break, 23°C	29.0	MPa			
Tensile Elongation			ASTM D638		
Yield, 23°C	4.0	%			
Break, 23°C	110	%			

Flexural Modulus (23°C)	2200	MPa	ASTM D790
Flexural Strength (23°C)	72.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact <sup>2</sup>			ASTM D256
-40°C	52	J/m	
23°C	94	J/m	
Unnotched Izod Impact			ASTM D4812
-40°C	No Break		
23°C	No Break		
Instrumented Dart Impact			ASTM D3763
-40°C, 3.18 mm, Injection Molded, Energy at Peak Load, Ductile Failure	41.0	J	
0°C, 3.18 mm, Injection Molded, Energy at Peak Load, Ductile Failure	37.0	J	
23°C, 3.18 mm, Injection Molded, Energy at Peak Load, Ductile Failure	33.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45.45	67.0	°C	
0.45 MPa, Unannealed	67.0	C	
0.45 MPa, Unannealed  1.8 MPa, Unannealed	62.0	°C	
1.8 MPa, Unannealed			ASTM D1525 <sup>3</sup>
1.8 MPa, Unannealed Vicat Softening Temperature	62.0	°C	ASTM D1525 <sup>3</sup> Test Method
1.8 MPa, Unannealed Vicat Softening Temperature Optical	62.0 79.0	°C	
1.8 MPa, Unannealed  Vicat Softening Temperature  Optical  Gloss (60°)	62.0 79.0 Nominal Value	°C	Test Method
1.8 MPa, Unannealed  Vicat Softening Temperature  Optical  Gloss (60°)	62.0 79.0 Nominal Value	°C	Test Method ASTM D2457
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance	62.0 79.0  Nominal Value 171	°C °C Unit	Test Method ASTM D2457
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance Total Regular	62.0 79.0 Nominal Value 171 90.0	°C °C Unit	Test Method ASTM D2457
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance Total Regular Haze	62.0 79.0 Nominal Value 171 90.0 88.0	°C °C Unit %	Test Method  ASTM D2457  ASTM D1003
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance Total Regular Haze NOTE	62.0 79.0 Nominal Value 171 90.0 88.0	°C °C Unit %	Test Method  ASTM D2457  ASTM D1003
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance Total Regular Haze NOTE	62.0 79.0  Nominal Value  171  90.0  88.0  0.60  CIELAB, Illuminant D6500, 10°	°C °C Unit %	Test Method  ASTM D2457  ASTM D1003
1.8 MPa, Unannealed Vicat Softening Temperature Optical Gloss (60°) Transmittance Total Regular Haze	62.0 79.0  Nominal Value  171  90.0  88.0  0.60  CIELAB, Illuminant D6500, 10° Observer	°C °C Unit %	Test Method  ASTM D2457  ASTM D1003

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