



Provista™ Copolymer MP002

Eastman Chemical Company - Thermoplastic Polyester

Monday, March 30, 2015

General Information

Product Description

Eastman Provista™ Copolymer MP002 is a resin specifically developed for extrusion into profiles for medical applications where aesthetics such as high clarity and gloss, coupled with design flexibility and enhanced toughness, drive demand. Compared to commonly used materials, Eastman Provista™ copolymer runs on most standard processing equipment at increased speeds. 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

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Biocompatible • Good Melt Strength	• Good Toughness • High Clarity	• High Gloss
Uses	• Medical/Healthcare Applications • Profiles		• Tubing
Agency Ratings	• ISO 10993	• USP Class VI	
Forms	• Pellets		
Processing Method	• Profile Extrusion		

ASTM & ISO Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.25	1.25 g/cm ³	ASTM D792
Molding Shrinkage - Flow	3.0E-3 in/in	0.30 %	ASTM D955
Color			ASTM D2244
a	-0.20	-0.20	
b	0.60	0.60	
L	95	95	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	276000 psi	1900 MPa	ASTM D638
Tensile Strength (Yield, 73°F (23°C))	6820 psi	47.0 MPa	ASTM D638
Tensile Strength (Break, 73°F (23°C))	6960 psi	48.0 MPa	ASTM D638
Tensile Elongation (Yield, 73°F (23°C))	5.0 %	5.0 %	ASTM D638
Tensile Elongation (Break, 73°F (23°C))	300 %	300 %	ASTM D638
Flexural Modulus (73°F (23°C))	276000 psi	1900 MPa	ASTM D790
Flexural Strength (73°F (23°C))	9430 psi	65.0 MPa	ASTM D790

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-40°F (-40°C)	1.2 ft-lb/in	63 J/m	
73°F (23°C)	No Break	No Break	
Unnotched Izod Impact			ASTM D4812
-40°F (-40°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
Instrumented Dart Impact			ASTM D3763
-40°F (-40°C), Energy at Peak Load	345 in-lb	39.0 J	
32°F (0°C), Energy at Peak Load	363 in-lb	41.0 J	
73°F (23°C), Energy at Peak Load	363 in-lb	41.0 J	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale, 73°F (23°C))	105	105	ASTM D785
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	163 °F	73.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	145 °F	63.0 °C	
Vicat Softening Temperature	185 °F	85.0 °C	ASTM D1525
Optical	Typical Value (English)	Typical Value (SI)	Test Method
Gloss (60°)	143	143	ASTM D2457
Transmittance			ASTM D1003
Total	91.0 %	91.0 %	
Regular	87.0 %	87.0 %	
Haze	1.3 %	1.3 %	ASTM D1003

Notes

¹ Typical properties: these are not to be construed as specifications.