

Medalist® MD-150

Teknor Apex Company - Thermoplastic Elastomer

Monday, March 23, 2015

General Information

Product Description

This compound is intended for use in medical and healthcare applications including high clarity tubing.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable	• Ethylene Oxide Sterilizable	• Radiation Sterilizable
Uses	• Medical/Healthcare Applications • Pharmaceuticals		
Agency Ratings	• ISO 10993 Part 5		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.033	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.021	in/in	ASTM D955
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	350	psi	ASTM D412
Tensile Stress (200% Strain)	430	psi	ASTM D412
Tensile Stress (300% Strain)	520	psi	ASTM D412
Tensile Strength (Break)	1150	psi	ASTM D412
Tensile Elongation (Break)	700	%	ASTM D412
Tear Strength	235	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	18	%	
158°F, 22 hr	95	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	55		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-76.0	°F	ASTM D746
Aging	Nominal Value	Unit	Test Method
Continuous Upper Temperature Resistance	185	°F	SAE J2236

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	280 to 320	°F
Middle Temperature	320 to 360	°F
Front Temperature	340 to 380	°F
Nozzle Temperature	380 to 420	°F
Processing (Melt) Temp	380 to 420	°F
Mold Temperature	70.0 to 100	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 100	psi

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Injection	Nominal Value	Unit
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

Teknor Apex Company Corporate Headquarters

*In U.S. for Vinyls, TPEs, Colorants,
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