

Medalist® MD-53268 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

General Information

Product Description

The Medalist MD-53200 Series is a high performance thermoplastic elastomer series, designed to be a sustainable alternative to flexible PVC for medical tubing and film. Medalist MD-53268 is a low density, medium hardness, clear, lubricated grade, available in Nat and color-matched, intended for use in medical and healthcare applications, with excellent processability and throughput in extruded tubing.

General			
Material Status	Preliminary Data		
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America
Features	 Autoclave Sterilizable Chemical Resistant Ethylene Oxide Sterilizable Good Adhesion Good Melt Strength Good Processability 	 Good Processing Stability Good Sterilizability Good Toughness Halogen Free High Clarity High Purity 	 Kink Resistant Low Density Low Specific Gravity Lubricated Medium Hardness Radiation (Gamma) Resistan
Uses	Clear SheetFilmHose	Medical/Healthcare ApplicationPharmaceuticalsRubber Replacement	ns • Tubing
Agency Ratings	 ISO 10993 Part 5 	• ISO 13485	
RoHS Compliance	 RoHS Compliant 		
Appearance	Clear/Transparent	Colors Available	
Forms	• Pellets		
Processing Method	Cast Film	• 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)	5.0	g/10 min	ASTM D1238	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress (50% Strain)	440	psi	ASTM D412	
Tensile Stress (100% Strain)	500	psi	ASTM D412	
Tensile Stress (300% Strain)	750	psi	ASTM D412	
Tensile Strength (Break)	1900	psi	ASTM D412	
Tensile Elongation (Break)	620	%	ASTM D412	
Tear Strength	285	lbf/in	ASTM D624	
Compression Set			ASTM D395	
73°F, 22 hr	20	%		
158°F, 22 hr		%		
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness			ASTM D2240	
Shore A, 1 sec	70	TIN N	是公司	
Shore A, 5 sec	68	科技有關語	Test Method R公司ASTM D2240 R公司ASTM D2240	
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Revision Date: 4/2/2017

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Legal Statement

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Processing Information			
njection	Nominal Value Unit		
Rear Temperature	300 to 340 °F		
Middle Temperature	340 to 380 °F		
Front Temperature	380 to 440 °F		
Nozzle Temperature	380 to 440 °F		
Processing (Melt) Temp	380 to 440 °F		
Mold Temperature	70 to 125 °F		
Back Pressure	50.0 to 150 psi		
Screw Speed	50 to 100 rpm		
Cushion	0.140 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.	320 to 370 °F
Cylinder Zone 2 Temp.	360 to 385 °F
Cylinder Zone 3 Temp.	360 to 400 °F
Cylinder Zone 4 Temp.	360 to 400 °F
Cylinder Zone 5 Temp.	360 to 410 °F
Die Temperature	350 to 420 °F

Extrusion Notes

Screw Speed: 30 to 100 rpm. Screen Pack Recommendation:

60/200/200/60 to 60/200/400/400/200/60 mesh size.

Notes

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

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