

Medalist® MD-53253

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-53253 is a low density, medium hardness, clear 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 Processability 	Good SterilizabilityHalogen FreeHigh ClarityHigh PurityLow Density	Low Specific GravityMedium HardnessNo Animal Derived ComponentsRadiation (Gamma) Resistant
Uses	Clear SheetFilmHose	Medical/Healthcare ApplicationPharmaceuticalsRubber Replacement	s • 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	

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)	4.0	g/10 min	ASTM D1238	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress ² (50% Strain)	220	psi	ASTM D412	
Tensile Stress ² (100% Strain)	270	psi	ASTM D412	
Tensile Stress ² (300% Strain)	415	psi	ASTM D412	
Tensile Strength ² (Break)	1340	psi	ASTM D412	
Tensile Elongation ² (Break)	890	%	ASTM D412	
Tear Strength ²	177	lbf/in	ASTM D624	
Compression Set ³ (73°F, 22 hr)	9.1	%	ASTM D395B	
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness			ASTM D2240	
Shore A, 1 sec	55			
Shore A, 5 sec	53			
Legal Statement		二個	KPJ \	

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Revision Date: 4/2/2017

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Processing Information			
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.

² Die C, 20 in/min

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³ Type 1