



# Medalist® MD-53263

Teknor Apex Company - Thermoplastic Elastomer

## 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-53263 is a low density, medium hardness, clear, lubricated grade, available in natural and color-matched, intended for use in medical and healthcare applications, with excellent processability and throughput in extruded tubing.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Colorability • Good Melt Strength • Good Processability	• Good Toughness • Halogen Free • High Clarity • High Purity • Kink Resistant • Low Density	• Low Specific Gravity • Lubricated • Medium Hardness • Radiation (Gamma) Resistant
Uses	• Clear Sheet • Film • Hose	• Medical/Healthcare Applications • Pharmaceuticals • Rubber Replacement	• Tubing
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	4.5	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (50% Strain)	290	psi	ASTM D412
Tensile Stress <sup>2</sup> (100% Strain)	340	psi	ASTM D412
Tensile Stress <sup>2</sup> (300% Strain)	550	psi	ASTM D412
Tensile Strength <sup>2</sup> (Break)	1700	psi	ASTM D412
Tensile Elongation <sup>2</sup> (Break)	680	%	ASTM D412
Tear Strength <sup>2</sup>	240	lbf/in	ASTM D624
Compression Set <sup>3</sup>			ASTM D395B
73°F, 22 hr	16	%	
158°F, 22 hr	99	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	66		
Shore A, 5 sec, Injection Molded	64		

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## Processing Information

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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

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### Extrusion Notes

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Screw Speed: 30 to 100 rpm.

Screen Pack Recommendation:

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

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 20 in/min

<sup>3</sup> Type 1

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