



# Medalist® MD-12350

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

This compound is intended for use in medical and healthcare applications, particularly for extruded medical tubing and injection molding applications for medical devices.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Ethylene Oxide Sterilizable • Good Processability	• High Purity • Kink Resistant • No Animal Derived Components	• Radiation (Gamma) Resistant
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	• Safety Equipment
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

## 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)	1.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (50% Strain)	175	psi	ASTM D412
Tensile Stress (100% Strain)	230	psi	ASTM D412
Tensile Stress (300% Strain)	520	psi	ASTM D412
Tensile Strength (Break)	1880	psi	ASTM D412
Tensile Elongation (Break)	690	%	ASTM D412
Tear Strength	205	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	17	%	
158°F, 22 hr	87	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	53		
Shore A, 5 sec	50		

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### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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).

<b>Extrusion</b>	<b>Nominal Value</b>	<b>Unit</b>
Cylinder Zone 1 Temp.	340 to 370	°F
Cylinder Zone 2 Temp.	360 to 385	°F
Cylinder Zone 3 Temp.	365 to 400	°F
Cylinder Zone 4 Temp.	365 to 440	°F
Cylinder Zone 5 Temp.	400 to 440	°F
Die Temperature	400 to 440	°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

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