

# Medalist® MD-12140 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

## General Information

### Product Description

The Medalist MD-12100 Series are high performance thermoplastic elastomers designed for medical and healthcare applications requiring high elasticity and excellent moldability. Medalist MD-12140 is a low hardness, low density grade, available in NAT and colors, which can be sterilized and exhibits excellent adhesion to polypropylene.

### General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Moldability • Good Sterilizability	• Good Toughness • Halogen Free • Low Density • Low Flow • Low Hardness • Low Specific Gravity	• Lubricated • Radiation Sterilizable • Resilient • Slip • Without Fillers
Uses	• Bushings • Closures • Disposable Hospital Goods • Flexible Grips	• Grommets • Knobs • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

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

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.885		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (50% Strain)	165	psi	ASTM D412
Tensile Stress <sup>2</sup> (100% Strain)	200	psi	ASTM D412
Tensile Stress <sup>2</sup> (300% Strain)	310	psi	ASTM D412
Tensile Strength <sup>2</sup> (Break)	590	psi	ASTM D412
Tensile Elongation <sup>2</sup> (Break)	600	%	ASTM D412
Tear Strength <sup>2</sup>	124	lbf/in	ASTM D624
Compression Set <sup>3</sup>			ASTM D395
73°F, 22 hr	16	%	
158°F, 22 hr	28	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	42		
Shore A, 5 sec	40		



Revision Date: 6/1/2016

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### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	360 to 440	°F
Processing (Melt) Temp	360 to 440	°F
Mold Temperature	80 to 120	°F
Injection Rate	Moderate-Fast	
Back Pressure	50.0 to 150	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 0.500	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).

### 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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