

# Medalist® MD-12150 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## 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-12150 is a medium hardness, low density, translucent 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 Specific Gravity • Lubricated	• Medium Hardness • 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	0.887		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (50% Strain)	170	psi	ASTM D412
Tensile Stress <sup>2</sup> (100% Strain)	210	psi	ASTM D412
Tensile Stress <sup>2</sup> (300% Strain)	315	psi	ASTM D412
Tensile Strength <sup>2</sup> (Break)	625	psi	ASTM D412
Tensile Elongation <sup>2</sup> (Break)	620	%	ASTM D412
Tear Strength <sup>2</sup>	152	lbf/in	ASTM D624
Compression Set <sup>3</sup>			ASTM D395
73°F, 22 hr	17	%	
158°F, 22 hr	30	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	52		
Shore A, 5 sec	50		

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### Legal Statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

### 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	25.0 to 100	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

#### Teknor Apex Company Corporate Headquarters

*In U.S. for Vinyls, TPEs, Colorants,  
Engineered Thermoplastics (Chem Polymer)*  
505 Central Avenue  
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000  
Fax: 401-725-8095  
Toll Free (U.S. only) 800-556-3864

#### Teknor Apex U.K. Ltd.

Tat Bank Road  
Oldbury, West Midlands B69 4NH England

Phone: (44) 121-665-2100  
Fax: (44) 121-544-5530

[etpsales@teknorapex.co.uk](mailto:etpsales@teknorapex.co.uk)

[info@teknorapex.com](mailto:info@teknorapex.com)