# Medalist<sup>®</sup> MD-12140H (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

# **General Information**

## **Product Description**

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Medalist MD-12338 XRD1 is a high performance thermoplastic elastomer designed for use in medical and healthcare applications requiring good flow and elastic properties. Medalist MD-MD-12338 XRD1 is a low density, low hardness, resilient grade, available in NAT and colors, which can be sterilized and exhibits excellent adhesion to polypropylene.

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

ASTM & ISO Properties <sup>1</sup>				
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	0.885		ASTM D792	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress <sup>2</sup> (50% Strain)	135	psi	ASTM D412	
Tensile Stress <sup>2</sup> (100% Strain)	175	psi	ASTM D412	
Tensile Stress <sup>2</sup> (300% Strain)	290	psi	ASTM D412	
Tensile Strength <sup>2</sup> (Break)	690	psi	ASTM D412	
Tensile Elongation <sup>2</sup> (Break)	710	%	ASTM D412	
Tear Strength <sup>2</sup>	108	lbf/in	ASTM D624	
Compression Set <sup>3</sup>			ASTM D395	
73°F, 22 hr	19	%		
158°F, 22 hr	78	%		
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness		科技有	58958 ASTM D2240	

Shore A, 1 sec, Injection Molded

Shore A, 5 sec, Injection Molded



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## Legal Statement

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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	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>3</sup> Type 1

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