

# Medalist® MD-24160 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

## General Information

### Product Description

Medalist MD-24160 is a high performance thermoplastic vulcanizate intended for use in medical and healthcare applications. Medalist MD-24160 is a medium hardness, low density, RoHS compliant grade suitable for injection molding.

### 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 • Halogen Free • High Flow • Low Compression Set • Low Density	• Low Specific Gravity • Lubricated • Medium Hardness • Radiation (Gamma) Resistant
Uses	• Hospital Goods • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement • Seals	• Soft Touch Applications
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Natural Color • Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding		

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.898	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (50% Strain)	1.59	MPa	ASTM D412
Tensile Stress (100% Strain)	2.00	MPa	ASTM D412
Tensile Strength (Break)	4.48	MPa	ASTM D412
Tensile Elongation (Break)	450	%	ASTM D412
Tear Strength <sup>2</sup>	24.5	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	19	%	
70°C, 22 hr	38	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	61		
Shore A, 5 sec	59		

### Legal Statement

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### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	149 to 182	°C
Middle Temperature	171 to 193	°C
Front Temperature	182 to 216	°C
Nozzle Temperature	193 to 221	°C
Processing (Melt) Temp	193 to 221	°C
Mold Temperature	21 to 43	°C
Injection Pressure	1.38 to 5.52	MPa
Back Pressure	0.172 to 0.517	MPa
Screw Speed	30 to 75	rpm
Cushion	3.81 to 25.4	mm

### 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, 510 mm/min

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