



Medalist® MD-24160 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

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 ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.900		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)	230	psi	ASTM D412
Tensile Stress (100% Strain)	290	psi	ASTM D412
Tensile Strength (Break)	650	psi	ASTM D412
Tensile Elongation (Break)	450	%	ASTM D412
Tear Strength ²	140	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	19	%	
158°F, 22 hr	38	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	61		
Shore A, 5 sec	59		

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Injection	Nominal Value	Unit
Rear Temperature	300 to 360	°F
Middle Temperature	340 to 380	°F
Front Temperature	360 to 420	°F
Nozzle Temperature	380 to 430	°F
Processing (Melt) Temp	380 to 430	°F
Mold Temperature	70 to 110	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 75.0	psi
Screw Speed	30 to 75	rpm
Cushion	0.150 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).

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C, 20 in/min