



Medalist® MD-225

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Medalist(R) MD-225 is a high performance thermoplastic vulcanizate intended for use in a variety of medical and healthcare applications. Medalist(R) MD-225 is a low density, medium hardness grade intended for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Colorability • Good Flexibility	• Good Mold Release • Good Moldability • Good Sterilizability • Good Tear Strength • Good Toughness • Halogen Free	• Low Density • Low Specific Gravity • Medium Hardness • Radiation Sterilizable • Resilient
Uses	• Bushings • Closures • Connectors • Flexible Grips • Gaskets	• Grommets • Handles • Medical/Healthcare Applications • Overmolding • Pharmaceuticals	• Plugs • Rubber Replacement • Seals
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Translucent	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.940		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	14	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	440	psi	ASTM D412
Tensile Stress (200% Strain)	590	psi	ASTM D412
Tensile Strength (Break)	700	psi	ASTM D412
Tensile Elongation (Break)	280	%	ASTM D412
Tear Strength	100	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	24	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	67		
Shore A, 5 sec	65		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	280 to 320	°F
Middle Temperature	320 to 360	°F
Front Temperature	340 to 380	°F
Nozzle Temperature	380 to 420	°F
Processing (Melt) Temp	380 to 420	°F
Mold Temperature	70 to 100	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	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.