



Medalist® MD-16163

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-16163 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-16163 is a medium hardness, high density, RoHS compliant grade that can be sterilized and is suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclavable • Autoclave Sterilizable • E-beam Sterilizable	• Ethylene Oxide Sterilizable • Good Flow • High Density	• Medium Hardness • Radiation Sterilizable
Uses	• Film • Handles	• Medical Devices • Medical/Healthcare Applications	• Rubber Replacement
RoHS Compliance	• RoHS Compliant		
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.14		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	27	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	276	psi	ASTM D412
Tensile Stress (200% Strain)	328	psi	ASTM D412
Tensile Stress (300% Strain)	387	psi	ASTM D412
Tensile Strength (Break)	957	psi	ASTM D412
Tensile Elongation (Break)	730	%	ASTM D412
Tear Strength - Flow	156	lbf/in	ASTM D624
Compression Set	22	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	65		
Shore A, 5 sec	63		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	390 to 410	°F
Middle Temperature	400 to 420	°F
Front Temperature	410 to 430	°F

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Injection	Nominal Value	Unit
Nozzle Temperature	420 to 440	°F
Processing (Melt) Temp	420 to 440	°F
Mold Temperature	95 to 150	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Fast	
Back Pressure	25.0 to 125	psi
Screw Speed	50 to 120	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.