



Medalist® MD-12376

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-12376 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-12376 is a high hardness, low density, halogen-free 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	• Autoclave Sterilizable • Ethylene Oxide Sterilizable • Excellent Elastic Recovery • Good Colorability • Good Moldability	• Good Processability • Good Tear Strength • Halogen Free • High Hardness • High Purity	• High Tensile Strength • Low Density • Medium Flow • No Animal Derived Components • Resilient
Uses	• Caps • Disposable Hospital Goods • Medical Devices	• Medical/Healthcare Applications • Pharmaceuticals • Rubber Replacement	• Surgical Instruments
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.902		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (50% Strain)	525	psi	ASTM D412
Tensile Stress ² (100% Strain)	605	psi	ASTM D412
Tensile Strength ² (Break)	2570	psi	ASTM D412
Tensile Elongation ² (Break)	690	%	ASTM D412
Tear Strength ²	400	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	78		
Shore A, 5 sec, Injection Molded	76		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
Middle Temperature	340 to 380	°F
Front Temperature	380 to 440	°F
Nozzle Temperature	380 to 440	°F
Processing (Melt) Temp	380 to 440	°F
Mold Temperature	90 to 130	°F
Screw Speed	50 to 100	rpm
Cushion	0.140 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