



Medalist® MD-10233 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-10233 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-10233 is a low hardness, low density, halogen-free grade that can be sterilized and is suitable for cast films and extrusion.

General

Material Status	• Preliminary Data ¹		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Excellent Printability • Good Adhesion • Good Colorability • Good Flexibility • Good Processability	• Good Stretchability • Good Toughness • Halogen Free • High Elasticity • Low Density • Low Flow • Low Hardness • Low Specific Gravity	• Outstanding Surface Finish • Puncture Resistant • Radiation Sterilizable • Resilient • Tack Free • Wear Resistant • Without Fillers
Uses	• Cast Film • Dental Applications • Film	• Hospital Goods • Medical Devices • Medical/Healthcare Applications	• Rubber Replacement • Sheet
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Translucent	
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.900		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	1.5	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ³ (100% Strain)	120	psi	ASTM D412
Tensile Stress ³ (300% Strain)	350	psi	ASTM D412
Tensile Strength ³ (Break)	1720	psi	ASTM D412
Tensile Elongation ³ (Break)	760	%	ASTM D412
Tear Strength ³	210	lbf/in	ASTM D624
Compression Set ⁴			ASTM D395
73°F, 22 hr	12	%	
158°F, 22 hr	91	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	35		
Shore A, 5 sec, Injection Molded	33		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°F	ASTM D746

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Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	380 to 400	°F
Cylinder Zone 2 Temp.	390 to 410	°F
Cylinder Zone 3 Temp.	410 to 430	°F
Cylinder Zone 4 Temp.	410 to 440	°F
Die Temperature	410 to 440	°F

Extrusion Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).
Screw Speed: 30 to 100 rpm; Screen pack: from 60/200/200/60 to 60/200/400/400/200/60 mesh size

Notes

¹ PER ELLIOTT REQUEST 011518

² Typical properties: these are not to be construed as specifications.

³ Die C, 20 in/min

⁴ Type 1