



Medalist® MD-16234 AP NAT (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-16234 AP NAT is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-16234 AP NAT is a low hardness, low density, halogen-free grade that is suitable for cast films and extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Ethylene Oxide Sterilizable • Good Colorability • Good Flexibility • Good Processability • Good Stretchability • Good Toughness	• Halogen Free • High Elasticity • Low Density • Low Hardness • Low Specific Gravity • Outstanding Surface Finish	• Puncture Resistant • 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 ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	102	psi	ASTM D412
Tensile Stress ² (300% Strain)	203	psi	ASTM D412
Tensile Strength ² (Break)	1020	psi	ASTM D412
Tensile Elongation ² (Break)	500	%	ASTM D412
Tear Strength ²	238	lbf/in	ASTM D624
Compression Set ³ (73°F, 22 hr)	13	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	36		
Shore A, 5 sec, Injection Molded	34		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec ⁻¹)	452	Pa·s	ASTM D3835

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Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	330 to 380	°F
Cylinder Zone 2 Temp.	350 to 400	°F
Cylinder Zone 3 Temp.	370 to 420	°F
Cylinder Zone 4 Temp.	370 to 440	°F
Die Temperature	370 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 Typical properties: these are not to be construed as specifications.

² Die C, 20 in/min

³ Type 2