Medalist® MD-110

Teknor Apex Company - Thermoplastic Elastomer

Thursday, June 29, 2017

General Information

Product Description

Medalist MD-110 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-110 is a low hardness, low density, halogen-free grade that is suitable for injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Sterilizability	• Halogen Free • Low Density • Low Hardness	• Low Specific Gravity
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	90.0	psi	ASTM D412
Tensile Stress (200% Strain)	135	psi	ASTM D412
Tensile Stress (300% Strain)	215	psi	ASTM D412
Tensile Strength (Break)	1050	psi	ASTM D412
Tensile Elongation (Break)	750	%	ASTM D412
Tear Strength	100	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	15	%	ASTM D395
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A	35		
Shore A, 5 sec	33		

Legal Statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	280 to 300	°F
Middle Temperature	320 to 360	°F
Front Temperature	340 to 380	°F

Revision Date: 7/13/2016

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Injection	Nominal Value	Unit
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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

[1] Typical properties: these are not to be construed as specifications.

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