TEKNOR APEX

Medalist® MD-17365 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

General Information

Product Description

Medalist MD-17365 is a high performance thermoplastic elastomer, available in NAT and colors, specifically designed for healthcare and medical applications. Medalist MD-17365 is a medium hardness, low density, lubricated, halogen-free grade that can be sterilized and is suitable for injection molding and extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Colorability • Good Flexibility • Good Moldability	• Halogen Free • Low Density • Low Flow • Low Specific Gravity • Medium Hardness • Radiation (Gamma) Resistant	• Radiation Sterilizable • Resilient • Slip • Without Fillers
Uses	• Bladders • Bushings • Connectors • Disposable Hospital Goods • Flexible Grips	• Grommets • Handles • Knobs • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement • Seals
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• 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)	360	psi	ASTM D412
Tensile Stress (300% Strain)	650	psi	ASTM D412
Tensile Strength (Break)	1700	psi	ASTM D412
Tensile Elongation (Break)	750	%	ASTM D412
Compression Set			ASTM D395
73°F, 22 hr	16	%	
158°F, 22 hr	84	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	68		
Shore A, 5 sec, Injection Molded	66		

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.

Revision Date: 7/27/2016

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	260 to 300	°F
Middle Temperature	280 to 320	°F
Front Temperature	300 to 340	°F
Nozzle Temperature	340 to 380	°F
Processing (Melt) Temp	340 to 380	°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 4 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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