

Medalist® MD-12283 X (PRELIMINARY DATA)

Extrusion

Teknor Apex Company - Thermoplastic Elastomer

Thursday, June 29, 2017

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Product Description

Processing Method

This compound is intended for use in medical and healthcare applications, particularly for extruded medical tubing. In addition, this grade exhibits superior dimensional stability after autoclave sterilization.

General	
Material	,

Material Status	 Preliminary Data 		
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America
Features	Autoclave SterilizableEthylene Oxide SterilizableGood Processability	 High Purity Kink Resistant No Animal Derived Compon	Radiation (Gamma) Resistant ents
Uses	 Medical/Healthcare Applicatio 	ns • Pharmaceuticals	
Agency Ratings	 ISO 10993 Part 5 	• ISO 13485	
RoHS Compliance	 RoHS Compliant 		
Appearance	 Translucent 		
Forms	 Pellets 		

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)	19	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (50% Strain)	575	psi	ASTM D412
Tensile Stress (100% Strain)	625	psi	ASTM D412
Tensile Stress (300% Strain)	790	psi	ASTM D412
Tensile Strength (Break)	2270	psi	ASTM D412
Tensile Elongation (Break)	760	%	ASTM D412
Tear Strength	283	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	34	%	
158°F, 22 hr	49	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240

Shore A, 1 sec 85 Shore A, 5 sec 83

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 an invention overed 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

Nominal Value Unit Injection 300 to 340 °F Rear Temperature

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Injection	Nominal Value	Unit
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	70 to 125	°F
Back Pressure	50.0 to 150	psi
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).

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	340 to 370 °F
Cylinder Zone 2 Temp.	360 to 385 °F
Cylinder Zone 3 Temp.	365 to 400 °F
Cylinder Zone 5 Temp.	400 to 440 °F
Die Temperature	400 to 440 °F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Screen Pack Recommendation: 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.

Teknor Apex Company Corporate Headquarters

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