



Medalist® MD-12283 X (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

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 Status	• Preliminary Data
Availability	- Africa & Middle East - Asia Pacific - Europe - Latin America - North America
Features	- Autoclave Sterilizable - Ethylene Oxide Sterilizable - Good Processability - High Purity - Kink Resistant - No Animal Derived Components - Radiation (Gamma) Resistant
Uses	• Medical/Healthcare Applications • Pharmaceuticals
Agency Ratings	- ISO 10993-5 - ISO 13485
RoHS Compliance	• RoHS Compliant
Appearance	• Translucent
Forms	• Pellets
Processing Method	• Extrusion

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / 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		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
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.