



Medalist® MD-16376 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 and injection molding applications for medical devices. This is a specialty grade designed for improved solvent bonding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Bondability • Ethylene Oxide Sterilizable	• Good Processing Stability • High Clarity • High Purity	• Kink Resistant • Radiation (Gamma) Resistant
Uses	• Medical Devices • Medical/Healthcare Applications	• Safety Equipment • Seats	
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.980		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (50% Strain)	580	psi	ASTM D412
Tensile Stress (100% Strain)	600	psi	ASTM D412
Tensile Stress (300% Strain)	955	psi	ASTM D412
Tensile Strength (Break)	2790	psi	ASTM D412
Tensile Elongation (Break)	540	%	ASTM D412
Tear Strength	267	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	61	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	78		
Shore A, 5 sec	76		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F

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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.