



Medalist® MD-50243

Teknor Apex Company - Thermoplastic Elastomer

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Ethylene Oxide Sterilizable • Good Processing Stability	• High Clarity • High Purity	• Kink Resistant • Radiation (Gamma) Resistant
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	• Safety Equipment
Agency Ratings	• ISO 10993-5		
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	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	215	psi	ASTM D412
Tensile Stress ² (300% Strain)	340	psi	ASTM D412
Tensile Strength ² (Break)	970	psi	ASTM D412
Tensile Elongation ² (Break)	820	%	ASTM D412
Tear Strength ²	142	lbf/in	ASTM D624
Compression Set ³ (73°F, 22 hr)	12	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	45		
Shore A, 5 sec	43		

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 420	°F
Processing (Melt) Temp	380 to 420	°F
Mold Temperature	70 to 125	°F
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).

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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 4 Temp.	370 to 420	°F
Cylinder Zone 5 Temp.	400 to 440	°F
Adapter Temperature	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.
- ² Die C, 20 in/min
- ³ Type 1