Medalist® MD-50248

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-50248 is a clear high performance thermoplastic elastomer specifically designed for healthcare and medical applications including medical tubing. Medalist MD-50248 is a medium hardness, low density, halogen-free grade that is suitable for extrusion or molding.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Processability	• Halogen Free • Low Density • Low Specific Gravity	• Medium Hardness
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	• Safety Equipment
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (50% Strain)	195	psi	ASTM D412
Tensile Stress (100% Strain)	240	psi	ASTM D412
Tensile Stress (300% Strain)	375	psi	ASTM D412
Tensile Strength (Break)	1150	psi	ASTM D412
Tensile Elongation (Break)	850	%	ASTM D412
Tear Strength	160	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	11	%	ASTM D395
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec	50		
Shore A, 5 sec	48		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	260 to 300	°F
Middle Temperature	280 to 320	°F

Revision Date: 7/20/2018

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Injection	Nominal Value	Unit
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.	340 to 370	°F
Cylinder Zone 2 Temp.	360 to 385	°F
Cylinder Zone 3 Temp.	365 to 400	°F
Cylinder Zone 4 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.

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