



Medalist® MD-50148

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-50148 is a clear high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-50148 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	• Good Sterilizability • Halogen Free • Low Density	• Low Specific Gravity • Medium Hardness
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	• Rubber Replacement
Agency Ratings	• 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
Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	75	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength - Flow (Break)	910	psi	ASTM D412
Tensile Elongation - Flow (Break)	680	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	62		
Shore A, 5 sec	55		
Shore A, 15 sec	53		

Processing Information

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

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Injection	Nominal Value	Unit
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.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 4 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.