Medalist® MD-165

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-165 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-165 is a high hardness, low density, halogen-free grade that is suitable for injection molding and extrusion.

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 • High Hardness	• Low Density • Low Specific Gravity
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
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) (200°C/5.0 kg)	1.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	650	psi	ASTM D412
Tensile Stress (200% Strain)	780	psi	ASTM D412
Tensile Stress (300% Strain)	980	psi	ASTM D412
Tensile Strength (Break)	2600	psi	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	395	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	18	%	ASTM D395
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A	87		
Shore A, 5 sec	85		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
Middle Temperature	360 to 400	°F

Revision Date: 2/27/2017

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Injection	Nominal Value	Unit
Front Temperature	380 to 420	°F
Nozzle Temperature	420 to 460	°F
Processing (Melt) Temp	420 to 460	°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.	320 to 340	°F
Cylinder Zone 2 Temp.	340 to 360	°F
Cylinder Zone 3 Temp.	360 to 400	°F
Cylinder Zone 4 Temp.	360 to 400	°F
Cylinder Zone 5 Temp.	380 to 420	°F
Die Temperature	400 to 440	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

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