Medalist® MD-12445

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-12445 is a high performance thermoplastic elastomer intended for use in medical and healthcare applications. Medalist MD-12445, available in Nat and colors, is a low density, medium hardness, high melt strength grade developed specifically for multi-cavity extrusion blow molding as an alternative to latex rubber.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Clean/High Purity • E-beam Sterilizable • Ethylene Oxide Sterilizable • Excellent Elastic Recovery • Good Adhesion	• Good Colorability • Good Flexibility • Good Melt Strength • Good Processability • Good Sterilizability • Good Tear Strength • Good Toughness	• Halogen Free • Low Density • Medium Hardness • Radiation (Gamma) Resistant • Resilient • Steam Sterilizable
Uses	• Bladders • Blow Molding Applications • Dental Applications • Diaphragms	• Film • Flexible Grips • Medical/Healthcare Applications • Pharmaceuticals	• Rubber Replacement • Seals • Soft Touch Applications • Tubing
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.902		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.3	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	196	psi	
Flow : 100% Strain	434	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	1110	psi	
Flow : Break	760	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	760	%	
Flow : Break	640	%	
Tear Strength [2]			ASTM D624
Across Flow	157	lbf/in	
Flow	194	lbf/in	
Compression Set [3]			ASTM D395
73°F, 22 hr	14	%	
158°F, 22 hr	97	%	

Revision Date: 9/18/2022

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	48		
Shore A, 5 sec, Injection Molded	46		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 351	°F
Middle Temperature	360 to 399	°F
Front Temperature	379 to 421	°F
Nozzle Temperature	360 to 441	°F
Processing (Melt) Temp	360 to 441	°F
Mold Temperature	81 to 120	°F
Injection Rate	Moderate-Fast	

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	300 to 340	°F
Cylinder Zone 2 Temp.	300 to 340	°F
Cylinder Zone 3 Temp.	330 to 350	°F
Cylinder Zone 4 Temp.	340 to 370	°F
Cylinder Zone 5 Temp.	340 to 370	°F
Adapter Temperature	340 to 370	°F
Melt Temperature	340 to 370	°F
Die Temperature	350 to 380	°F

Extrusion Notes

Note: The extrusion parameters are for Extrusion Blow Molding applications.
Screw Speed: 30 to 100 rpm
Screen Mesh: 20 to 200
Drying is recommended for areas with high moisture environment.Dry the pellets for 1 to 3 hours at 150°F (65°C).

Notes

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

[2] Die C, 20 in/min

[3] Type 1

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