Medalist® MD-10308 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-10308 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-10308 is a low hardness, low density, halogen-free grade that can be sterilized and is suitable for injection molding, extrusion, and cast film.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Colorability • Good Melt Strength • Good Processability • Good Stretchability	• Good Tear Strength • Good Toughness • Halogen Free • High Clarity • High Elasticity • High Elongation • Low Density	• Low Hardness • Low Odor • Low Specific Gravity • Puncture Resistant • Resilient • Soft
Uses	• Dental Applications • Film • Hospital Goods	• Medical Devices • Medical/Healthcare Applications • Rubber Replacement	• Soft Touch Applications
Agency Ratings	• ISO 10993-5	• ISO 13485	
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Cast Film	• Film Extrusion	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.870		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	15	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (100% Strain)	30.0	psi	ASTM D412
Tensile Stress [2] (300% Strain)	60.0	psi	ASTM D412
Tensile Strength [2] (Break)	615	psi	ASTM D412
Tensile Elongation [2] (Break)	800	%	ASTM D412
Tear Strength [2]	90.0	lbf/in	ASTM D624
Compression Set [3] (73°F, 24 hr)	11	%	ASTM D395
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	10		
Shore A, 5 sec, Injection Molded	8		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -76.0	°F	ASTM D746

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	338 to 356	°F
Middle Temperature	365 to 392	°F
Front Temperature	365 to 392	°F
Nozzle Temperature	365 to 392	°F
Processing (Melt) Temp	365 to 392	°F
Mold Temperature	50 to 100	°F
Screw Speed	50 to 100	rpm
Cushion	0.140 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.	370 to 400	°F
Cylinder Zone 2 Temp.	385 to 405	°F
Cylinder Zone 3 Temp.	390 to 410	°F
Cylinder Zone 4 Temp.	390 to 410	°F
Cylinder Zone 5 Temp.	400 to 420	°F
Die Temperature	400 to 420	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm;Screen pack: from 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

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