Medalist® MD-12344

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-12344 is designed for medical and healthcare applications requiring high elasticity and tensile strength. Medalist MD-12344 is a medium hardness, low density, translucent thermoplastic elastomer that can be sterilized and is suitable for injection molding and extrusion. Medalist MD-12344 is an alternative to Monprene MP-2840E for dropper bulb applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion	• Good Colorability • Good Processability • Good Sterilizability • Halogen Free	• Low Density • Low Specific Gravity • Medium Hardness • Radiation (Gamma) Resistant
Uses	• Flexible Grips • Handles	• Medical/Healthcare Applications • Pharmaceuticals	• Rubber Replacement
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• 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)	0.50	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	205	psi	ASTM D412
Tensile Stress (200% Strain)	300	psi	ASTM D412
Tensile Stress (300% Strain)	400	psi	ASTM D412
Tensile Strength (Break)	980	psi	ASTM D412
Tensile Elongation (Break)	610	%	ASTM D412
Tear Strength	139	lbf/in	ASTM D624
Compression Set			ASTM D395B
73°F, 22 hr	11	%	
158°F, 22 hr	28	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A	45		
Shore A, 5 sec	43		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
Middle Temperature	340 to 380	°F
Front Temperature	380 to 440	°F
Nozzle Temperature	380 to 440	°F
Processing (Melt) Temp	380 to 440	°F
Mold Temperature	70 to 125	°F
Back Pressure	50.0 to 150	psi
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.	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.

Teknor Apex Company
Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants,

Engineered Thermoplastics (Chem Polymer)
505 Central Avenue
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000
Fax: 401-725-8095
Toll Free (U.S. only) 800-556-3864

www.teknorapex.com
info@teknorapex.com

Teknor Apex B.V.

Brightlands Chemelot Campus Umonderbaan 22
6167 RD Geleen, Netherlands

Phone: +31 46 7020 950
Fax: +31 46 7020 990

www.teknorapex.com
tpe@teknorapex.com

Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550
Fax: (86) 512-6288-8371

www.teknorapex.com
infotaap@teknoapex.com

Teknor Apex Asia Pacific PTE. LTD.

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544
Fax: (65) 6265-1821

www.teknorapex.com
infotaap@teknorapex.com

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