Medalist® MD-42190 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-42190 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-42190 is a high hardness, low density, RoHS compliant grade that can be sterilized and is suitable for injection molding.

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 Moldability • Good Sterilizability	• Good Toughness • Halogen Free • High Hardness • Low Density • Low Specific Gravity • Medium Flow	• Radiation Sterilizable • Resilient • Slip • Without Fillers
Uses	• Bushings • Closures • Disposable Hospital Goods • Flexible Grips	• Grommets • Knobs • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (50% Strain)	750	psi	ASTM D412
Tensile Stress [2] (100% Strain)	800	psi	ASTM D412
Tensile Stress [2] (300% Strain)	990	psi	ASTM D412
Tensile Strength [2] (Break)	3000	psi	ASTM D412
Tensile Elongation [2] (Break)	790	%	ASTM D412
Tear Strength [2]	390	lbf/in	ASTM D624
Compression Set [3]			ASTM D395
73°F, 22 hr	34	%	
158°F, 22 hr	56	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec	91		
Shore A, 5 sec	90		

Revision Date: 1/27/2021

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	360 to 440	°F
Processing (Melt) Temp	360 to 440	°F
Mold Temperature	80 to 120	°F
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 0.500	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).

Notes

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

[2] Die C, 20 in/min

[3] Type 1

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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