Medalist® MD-16143D

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-16143D is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-16143D is a high hardness, medium 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 • Filled • Good Adhesion	• Good Colorability • Good Moldability • Good Sterilizability • Good Toughness • Halogen Free	• High Flow • High Hardness • Low Specific Gravity • Medium Density • Slip
Uses	• Caps • Dental Applications • Disposable Hospital Goods • Handles • Hypodermic Syringe Parts	• Knobs • Medical Devices • Medical/Healthcare Applications • Medical/Healthcare Applications • Overmolding	• Pharmaceuticals • Rubber Replacement • Rubber Replacement • Surgical Instruments
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.02		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	30	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (50% Strain)	1400	psi	ASTM D412
Tensile Strength [2] (Break)	1420	psi	ASTM D412
Tensile Elongation [2] (Break)	80	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	48		
Shore D, 5 sec, Injection Molded	45		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 356	°F

Revision Date: 4/11/2019

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Injection	Nominal Value	Unit
Middle Temperature	356 to 392	°F
Front Temperature	392 to 446	°F
Nozzle Temperature	392 to 446	°F
Processing (Melt) Temp	392 to 446	°F
Mold Temperature	40 to 80	°F
Injection Rate	Moderate-Fast	
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, 2.0 in/min

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