Medalist® MD-10118 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-10118 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-10118 XRD1 is a low hardness, medium density, halogen-free grade that can be sterilized is suitable for injection molding.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Ethylene Oxide Sterilizable • Good Colorability • Good Flexibility • Good Moldability • Good Sterilizability	• Good Toughness • Halogen Free • High Flow • Low Density • Low Hardness • Low Specific Gravity	• Lubricated • Radiation Sterilizable • Resilient • Slip • Without Fillers
Uses	• Dental Applications • Handles • Knobs	• Medical Devices • Medical/Healthcare Applications • Overmolding	• Pharmaceuticals • Rubber Replacement • Soft Touch Applications
Agency Ratings	• ISO 13485		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.850		ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/2.16 kg)	3.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (50% Strain)	47.9	psi	ASTM D412
Tensile Stress [2] (100% Strain)	66.7	psi	ASTM D412
Tensile Stress [2] (300% Strain)	115	psi	ASTM D412
Tensile Strength [2] (Break)	892	psi	ASTM D412
Tensile Elongation [2] (Break)	1200	%	ASTM D412
Tear Strength [2]	100	lbf/in	ASTM D624
Compression Set [3] (73°F, 22 hr)	13	%	ASTM D395B
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	20		
Shore A, 5 sec, Injection Molded	18		

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Revision Date: 8/30/2018

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 320	°F
Middle Temperature	320 to 350	°F
Front Temperature	350 to 375	°F
Nozzle Temperature	330 to 375	°F
Processing (Melt) Temp	330 to 375	°F
Mold Temperature	60 to 100	°F
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 100	psi
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

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