Medalist® MD-10118 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Saturday, September 14, 2024

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		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.848	g/cm³	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)	0.330	MPa	ASTM D412
Tensile Stress [2] (100% Strain)	0.460	MPa	ASTM D412
Tensile Stress [2] (300% Strain)	0.790	MPa	ASTM D412
Tensile Strength [2] (Break)	6.15	MPa	ASTM D412
Tensile Elongation [2] (Break)	1200	%	ASTM D412
Tear Strength [2]	17.5	kN/m	ASTM D624
Compression Set [3] (23°C, 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		

Legal Statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

Revision Date: 8/30/2018

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	149 to 160	°C
Middle Temperature	160 to 177	°C
Front Temperature	177 to 191	°C
Nozzle Temperature	166 to 191	°C
Processing (Melt) Temp	166 to 191	°C
Mold Temperature	16 to 38	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.172 to 0.689	MPa
Cushion	3.81 to 12.7	mm

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, 510 mm/min

[3] Type 1

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