

Medalist® MD-16120G (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Saturday, September 14, 2024

General Information

Product Description

Medalist MD-16120G XRD1 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-16120G XRD1 is a low hardness, low density, lubricated grade that can be sterilized and is suitable for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Colorability • Good Moldability • Good Processability • Good Sterilizability	• Halogen Free • High Elongation • High Flow • Low Density	• Low Hardness • Lubricated • Soft
Uses	• Disposable Hospital Goods • Hospital Goods	• Medical/Healthcare Applications • Pharmaceuticals	• Rubber Replacement • Soft Touch Applications
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.840	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (125°C/0.325 kg)	1.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	0.0350	MPa	ASTM D412
Tensile Stress ² (200% Strain)	0.0440	MPa	ASTM D412
Tensile Stress ² (300% Strain)	0.0540	MPa	ASTM D412
Tensile Strength ² (Break)	1.38	MPa	ASTM D412
Tensile Elongation ² (Break)	1300	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore OO, 1 sec, Injection Molded	23		
Shore OO, 5 sec, Injection Molded	20		

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.

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	121 to 135	°C
Middle Temperature	135 to 149	°C
Front Temperature	149 to 160	°C

Revision Date: 3/29/2019

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Injection	Nominal Value	Unit
Nozzle Temperature	149 to 166	°C
Processing (Melt) Temp	149 to 166	°C
Mold Temperature	27 to 49	°C
Injection Rate	Slow-Moderate	
Back Pressure	0.172 to 0.689	MPa
Cushion	3.81 to 25.4	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

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