

Medalist® MD-12180H (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist MD-12100H series are high performance thermoplastic elastomers designed for use in medical and healthcare applications requiring high flow. Medalist MD-12180H is a low density, higher hardness, resilient grade, available in NAT and colors, which can be sterilized and exhibits excellent adhesion to polypropylene.

General Information	
Features	Low Specific Gravity
	Without Fillers
	Low density
	Pressure cooker disinfection
	smoothness
	Good disinfection
	Ethylene oxide disinfection
	Anti-gamma radiation
	Good formability
	Good flexibility
	Good coloring
	Good adhesion
	High liquidity
	Good chemical resistance
	Good toughness
	Halogen-free
	High hardness
	Elastic
Uses	Disposable Hospital Goods
	Handle
	Plug
	Bushing
	Washer
	Connector
	Seals
	Airbag
	Soft handle
	Rubber substitution
	Knob
	Drug
	Medical/nursing supplies

Agency Ratings	ISO 10993 Part 5 ISO 13485		
RoHS Compliance	RoHS compliance		
Appearance	Translucent Available colors Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.887	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	14	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	82		ASTM D2240
Shore A, 5 seconds, injection molding	80		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
50% strain	3.34	MPa	ASTM D412
100% strain	3.69	MPa	ASTM D412
300% strain	4.83	MPa	ASTM D412
Tensile Strength ² (Break)	5.96	MPa	ASTM D412
Tensile Elongation ³ (Break)	480	%	ASTM D412
Tear Strength ⁴	33.3	kN/m	ASTM D624
Compression Set ⁵			ASTM D395
23°C, 22 hr	28	%	ASTM D395
70°C, 22 hr	77	%	ASTM D395
Legal statement			
<p>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.</p>			
Injection	Nominal Value	Unit	
Rear Temperature	160 - 177	°C	
Middle Temperature	182 - 204	°C	
Front Temperature	193 - 216	°C	
Nozzle Temperature	182 - 227	°C	
Processing (Melt) Temp	182 - 227	°C	

Mold Temperature	27 - 49	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 12.7	mm

Injection instructions

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

NOTE

1.	C mold, 510mm/min
2.	C mold, 510mm/min
3.	C mold, 510mm/min
4.	C mold, 510mm/min
5.	Type 1

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
 Phone: +86 13424755533
 Email: sales@su-jiao.com
 No. 215, Lianhe North Road, Fengxian District, Shanghai, China

