

Medalist® MD-555

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist MD-555 is a high performance thermoplastic elastomer intended for use in medical and healthcare applications, especially medical tubing. Medalist MD-555 is a medium hardness, low density, clear grade designed to be a sustainable alternative to flexible PVC with excellent processability and throughput in extruded tubing.

General Information			
Features	Low Specific Gravity		
	High purity		
	Low density		
	Pressure cooker disinfection		
	Good disinfection		
	Ethylene oxide disinfection		
	Anti-gamma radiation		
	Workability, good		
	Good adhesion		
	Good chemical resistance		
	Definition, high		
	No kinetic components		
	Halogen-free		
	Medium hardness		
Uses	Films		
	Pipe fittings		
	Rubber substitution		
	Drug		
	Medical/nursing supplies		
RoHS Compliance	RoHS compliance		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
	cast film		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	15	g/10 min	ASTM D1238

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 1 sec	55		ASTM D2240
Shaw A, 5 seconds	53		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
50% strain	1.52	MPa	ASTM D412
100% strain	1.86	MPa	ASTM D412
300% strain	2.86	MPa	ASTM D412
Tensile Strength (Break)	9.20	MPa	ASTM D412
Tensile Elongation (Break)	890	%	ASTM D412
Tear Strength	31.0	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	9.1	%	ASTM D395

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.

Injection	Nominal Value	Unit
Rear Temperature	127 - 149	°C
Middle Temperature	138 - 160	°C
Front Temperature	149 - 171	°C
Nozzle Temperature	171 - 193	°C
Processing (Melt) Temp	171 - 193	°C
Mold Temperature	21 - 38	°C
Injection Pressure	1.38 - 5.52	MPa
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	171 - 188	°C
Cylinder Zone 2 Temp.	182 - 196	°C
Cylinder Zone 3 Temp.	185 - 204	°C
Cylinder Zone 4 Temp.	185 - 204	°C
Cylinder Zone 5 Temp.	204 - 227	°C
Die Temperature	204 - 227	°C

Extrusion instructions

Screw Speed: 30 to 100 rpm. Screen Pack Recommendation: 60/200/200/60 to 60/200/400/400/200/60 mesh size.

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

