Medalist® MD-12342

Thermoplastic Elastomer

Teknor Apex Company

Message:

This compound is intended for use in medical and healthcare applications, particularly for extruded medical tubing and molding applications

General Information				
Features	High purity			
	Pressure cooker disinfection			
	Ethylene oxide disinfection			
	Anti-gamma radiation			
	Workability, good			
	Kink resistance			
	No kinetic components			
Uses	Drug			
	Medical/nursing supplies			
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Agency Ratings	ISO 10993 Part 5			
	ISO 13485			
Appearance	Translucent			
Forms	Particle			
Processing Method	Extrusion			
	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	0.888	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.0	g/10 min	ASTM D1238	
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness			ASTM D2240	
Shaw A, 1 sec	44		ASTM D2240	
Shaw A, 5 seconds	42		ASTM D2240	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress			ASTM D412	
50% strain	1.07	MPa	ASTM D412	
100% strain	1.38	MPa	ASTM D412	
300% strain	2.86	MPa	ASTM D412	
Tensile Strength (Break)	13.1	MPa	ASTM D412	
Tensile Elongation (Break)	720	%	ASTM D412	

Tear Strength	32.7	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	17	%	ASTM D395
70°C, 22 hr	97	%	ASTM D395
Legal statement			

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Injection	Nominal Value	Unit	
Rear Temperature	149 - 171	°C	
Middle Temperature	171 - 193	°C	
Front Temperature	193 - 227	°C	
Nozzle Temperature	193 - 227	°C	
Processing (Melt) Temp	193 - 227	°C	
Mold Temperature	21.1 - 51.7	°C	
Back Pressure	0.345 - 1.03	МРа	
Screw Speed	50 - 100	rpm	
Cushion	3.56 - 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 5 Temp.	204 - 227	°C
Die Temperature	204 - 227	°C
Extrusion instructions		

Screw Speed: 30 to 100 rpmScreen Pack Recommendation: 60/200/200/60 to 60/200/400/400/200/60 mesh size

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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

