

# Medalist® MD-447

Thermoplastic Elastomer

Teknor Apex Company

## Message:

Medalist™MD-447 is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Typical application areas include:

medical/health care

safety equipment

General Information			
Uses	Safety equipment		
	Drug		
	Medical/nursing supplies		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.868	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (125°C/2.16 kg)	20	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 1 sec	0		ASTM D2240
Shaw OO, 1 sec	25		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (300% Strain)	0.172	MPa	ASTM D412
Tensile Strength (Break)	0.689	MPa	ASTM D412
Tensile Elongation (Break)	750	%	ASTM D412
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	21.1 - 37.8	°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.	138 - 149	°C
Cylinder Zone 2 Temp.	149 - 160	°C
Cylinder Zone 3 Temp.	160 - 182	°C
Cylinder Zone 5 Temp.	171 - 193	°C
Die Temperature	182 - 204	°C
Extrusion instructions		
Screw Speed: 30 to 100 rpm		

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#### Recommended distributors for this material

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