

Medalist® MD-50253

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist™MD-50253 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.

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		
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)	5.0	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
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.	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 rpm.Screen Pack Recommendation:60/200/200/60 to 60/200/400/400/200/60 mesh size.

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