

# Medalist® MD-50273

Thermoplastic Elastomer

Teknor Apex Company

Message:

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

General Information			
Features	High purity		
	Pressure cooker disinfection		
	Ethylene oxide disinfection		
	Anti-gamma radiation		
	Workability, good		
	Kink resistance		
	Definition, high		
	No kinetic components		
Uses	Drug		
	Medical/nursing supplies		
Agency Ratings	ISO 10993 Part 5		
	ISO 13485		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm <sup>3</sup>	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	78		ASTM D2240
Shaw A, 5 seconds	76		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
50% strain	3.83	MPa	ASTM D412
100% strain	4.21	MPa	ASTM D412
300% strain	6.07	MPa	ASTM D412
Tensile Strength (Break)	14.4	MPa	ASTM D412

Tensile Elongation (Break)	630	%	ASTM D412
Tear Strength	56.0	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	21	%	ASTM D395
70°C, 22 hr	82	%	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	MPa
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 rpm. Screen Pack Recommendation: 60/200/200/60 to 60/200/400/400/200/60 mesh size.

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