

# Medalist® MD-12360

Thermoplastic Elastomer

Teknor Apex Company

## Message:

Medalist MD-12360 is a clear high performance thermoplastic elastomer, available in NAT and colors, intended for use in medical and healthcare applications. Medalist MD-12360 is a medium hardness, low density grade suitable for injection molding and extrusion.

General Information	
Features	Excellent Processability
	Low Specific Gravity
	Low density
	Good disinfection
	Good flexibility
	Good adhesion
	Good chemical resistance
	Halogen-free
	Medium hardness
Uses	Drug
	Medical/nursing supplies
Agency Ratings	ISO 13485
RoHS Compliance	RoHS compliance
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)	1.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 1 sec	62		ASTM D2240
Shaw A, 5 seconds	60		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	2.31	MPa	ASTM D412
200% strain	3.28	MPa	ASTM D412
300% strain	4.62	MPa	ASTM D412

Tensile Strength (Break)	15.2	MPa	ASTM D412
Tensile Elongation (Break)	780	%	ASTM D412

#### Legal statement

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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.	138 - 149	°C
Cylinder Zone 2 Temp.	149 - 160	°C
Cylinder Zone 3 Temp.	160 - 182	°C
Cylinder Zone 4 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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