

Medalist® MD-12250

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist(R) MD-12250 is a clear high performance thermoplastic elastomer intended for use in medical and healthcare applications. Medalist(R) MD-12250 is a low density, medium hardness grade that is suitable for extrusion and injection molding.

General Information	
Features	Low density
	Radiation disinfection
	Pressure cooker disinfection
	Good disinfection
	Ethylene oxide disinfection
	Workability, good
	Good formability
	Good chemical resistance
	Kink resistance
	Halogen-free
	Elastic
	Medium hardness
Uses	overmolding
	Films
	Washer
	Pipe fittings
	Airbag
	Shell
	Drug
	Medical/nursing supplies
Agency Ratings	ISO 10993 Part 5
	ISO 13485
RoHS Compliance	RoHS compliance
Appearance	White
	Available colors
	Clear/transparent
	Natural color
Forms	Particle

Processing Method	Extrusion Injection molding		
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Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm ³	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	53		ASTM D2240
Shaw A, 5 seconds	50		ASTM D2240

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
50% strain	1.21	MPa	ASTM D412
100% strain	1.59	MPa	ASTM D412
300% strain	3.59	MPa	ASTM D412
Tensile Strength (Break)	13.0	MPa	ASTM D412
Tensile Elongation (Break)	700	%	ASTM D412
Tear Strength	35.9	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	17	%	ASTM D395B

Legal statement

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Injection	Nominal Value	Unit
Rear Temperature	182 - 232	°C
Middle Temperature	188 - 238	°C
Front Temperature	193 - 243	°C
Nozzle Temperature	199 - 249	°C
Processing (Melt) Temp	199 - 249	°C
Mold Temperature	35 - 49	°C
Injection Pressure	1.38 - 5.52	MPa
Injection Rate	Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm

Injection instructions

无需干燥.但如果湿度过大,则将粒料在150°F (65°C)的温度下干燥2-4小时.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	182 - 232	°C

Cylinder Zone 2 Temp.	188 - 238	°C
Cylinder Zone 3 Temp.	193 - 243	°C
Cylinder Zone 4 Temp.	185 - 227	°C
Cylinder Zone 5 Temp.	199 - 249	°C
Die Temperature	199 - 249	°C

Extrusion instructions

螺杆转速30 - 100 rpm

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