Medalist® MD-140

Thermoplastic Elastomer

Teknor Apex Company

Message:

This compound is intended for use in medical and healthcare applications requiring excellent elastic properties.

General Information	
Features	Radiation disinfection Pressure cooker disinfection Ethylene oxide disinfection
Uses	Drug Medical/nursing supplies
Agency Ratings	ISO 10993 Part 5
Appearance	Translucent
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.908	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	3.5	%	ASTM D955
Transverse flow	2.0	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	45		ASTM D2240
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ASTM D412
100% strain	1.59	MPa	ASTM D412
200% strain	2.34	MPa	ASTM D412
300% strain	3.79	MPa	ASTM D412
Tensile Strength (Break)	10.2	MPa	ASTM D412
Tensile Elongation (Break)	630	%	ASTM D412
Tear Strength	37.7	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	13	%	ASTM D395
70°C, 22 hr	110	%	ASTM D395

Aging	Nominal Value	Unit	Test Method
Continuous Upper Temperature Resistance	90	°C	SAE J2236

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-60.0	°C	ISO 974

Legal statement

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Injection	Nominal Value	Unit
Rear Temperature	138 - 160	°C
Middle Temperature	160 - 182	°C
Front Temperature	171 - 193	°C
Nozzle Temperature	193 - 216	°C
Processing (Melt) Temp	193 - 216	°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

螺杆转速30 - 100 rpm

Recommended distributors for this material

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