

Medalist® MD-145

Thermoplastic Elastomer

Teknor Apex Company

Message:

This compound is medical and healthcare applications requiring hot water resistance.

General Information			
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	0.888	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	0.50	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	2.5	%	ASTM D955
Transverse flow	2.4	%	ASTM D955

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	50		ASTM D2240

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	1.03	MPa	ASTM D412
200% strain	1.41	MPa	ASTM D412
300% strain	1.76	MPa	ASTM D412
Tensile Strength (Break)	5.86	MPa	ASTM D412
Tensile Elongation (Break)	750	%	ASTM D412
Tear Strength	22.8	kN/m	ASTM D624
Compression Set	16	%	ASTM D395

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

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