

Medalist® MD-165

Thermoplastic Elastomer

Teknor Apex Company

Message:

This compound is designed for medical and healthcare applications requiring hard rubber characteristics.

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)	1.5	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	2.2	%	ASTM D955
Transverse flow	1.8	%	ASTM D955

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	87		ASTM D2240

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	4.48	MPa	ASTM D412
200% strain	5.38	MPa	ASTM D412
300% strain	6.76	MPa	ASTM D412
Tensile Strength (Break)	17.9	MPa	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	69.2	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	18	%	ASTM D395

Injection	Nominal Value	Unit
Rear Temperature	149 - 171	°C
Middle Temperature	182 - 204	°C
Front Temperature	193 - 216	°C
Nozzle Temperature	216 - 238	°C
Processing (Melt) Temp	216 - 238	°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.	160 - 171	°C
Cylinder Zone 2 Temp.	171 - 182	°C
Cylinder Zone 3 Temp.	182 - 204	°C
Cylinder Zone 5 Temp.	193 - 216	°C
Die Temperature	204 - 227	°C

Extrusion instructions

螺杆转速30 - 100 rpm

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