



Medalist® MD-105

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

This compound is designed for medical and healthcare applications requiring a soft, gel-like material.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Medical/Healthcare Applications • Pharmaceuticals		
Agency Ratings	• ISO 10993-5		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	15	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.028	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.024	in/in	ASTM D955
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	50.0	psi	ASTM D412
Tensile Stress (200% Strain)	70.0	psi	ASTM D412
Tensile Stress (300% Strain)	100	psi	ASTM D412
Tensile Strength (Break)	600	psi	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	100	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	23	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	18		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	280 to 300	°F
Middle Temperature	300 to 320	°F
Front Temperature	320 to 340	°F
Nozzle Temperature	340 to 360	°F
Processing (Melt) Temp	340 to 360	°F
Mold Temperature	70 to 100	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).