



Medalist® MD-50153 NAT X (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist(R) MD-50153 is a clear high performance thermoplastic elastomer intended for use in medical and healthcare applications, particularly for molded goods. Medalist(R) MD-50153 is a low density, higher hardness grade designed to be a sustainable alternative to flexible PVC.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Ethylene Oxide Sterilizable • Good Flow • Good Moldability	• Good Sterilizability • Halogen Free • High Clarity • Low Density	• Medium Hardness • Radiation Sterilizable
Uses	• Medical/Healthcare Applications	• Pharmaceuticals	• Safety Equipment
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	10	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength - Flow (Break)	1340	psi	ASTM D412
Tensile Elongation - Flow (Break)	800	%	ASTM D412
Tear Strength	177	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	55		
Shore A, 5 sec	53		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	260 to 300	°F
Middle Temperature	280 to 320	°F
Front Temperature	320 to 360	°F
Nozzle Temperature	360 to 390	°F
Processing (Melt) Temp	360 to 390	°F
Mold Temperature	70 to 100	°F
Injection Pressure	200 to 800	psi

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Injection	Nominal Value	Unit
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).

Notes

¹ Typical properties: these are not to be construed as specifications.