



Medalist® MD-53253

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Medalist MD-53200 Series is a high performance thermoplastic elastomer series, designed to be a sustainable alternative to flexible PVC for medical tubing and film. Medalist MD-53253 is a low density, medium hardness, clear grade, available in Nat and color-matched, intended for use in medical and healthcare applications, with excellent processability and throughput in extruded tubing.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Processability	• Halogen Free • High Clarity • High Purity • Low Density	• Low Specific Gravity • Medium Hardness • No Animal Derived Components • Radiation (Gamma) Resistant
Uses	• Clear Sheet • Film • Hose	• Medical/Healthcare Applications • Pharmaceuticals • Rubber Replacement	• Tubing
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.5	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (50% Strain)	190	psi	ASTM D412
Tensile Stress ² (100% Strain)	230	psi	ASTM D412
Tensile Stress ² (300% Strain)	400	psi	ASTM D412
Tensile Strength ² (Break)	1650	psi	ASTM D412
Tensile Elongation ² (Break)	670	%	ASTM D412
Tear Strength ²	165	lbf/in	ASTM D624
Compression Set ³			ASTM D395B
73°F, 22 hr	13	%	
158°F, 22 hr	100	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	55		
Shore A, 5 sec	53		

Medalist® MD-53253

Teknor Apex Company - Thermoplastic Elastomer

Processing Information		
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320 to 370	°F
Cylinder Zone 2 Temp.	360 to 385	°F
Cylinder Zone 3 Temp.	360 to 400	°F
Cylinder Zone 4 Temp.	360 to 400	°F
Cylinder Zone 5 Temp.	360 to 410	°F
Die Temperature	350 to 420	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm.

Screen Pack Recommendation:

60/200/200/60 to 60/200/400/400/200/60 mesh size.

Notes

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

² Die C, 20 in/min

³ Type 1