



Medalist® MD-17270 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-17270 is a high performance thermoplastic elastomer specifically designed for a peristaltic pump tubing application. Medalist MD-17270 is a medium hardness, low density, sterilizable grade suitable for extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable	• Good Colorability • Good Melt Strength • Halogen Free • Low Density	• Medium Hardness • Radiation Sterilizable
Uses	• Biopharma Processing • Hospital Goods • Medical Devices	• Medical/Healthcare Applications • Pharmaceuticals • Rubber Replacement	• Tubing
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• 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)	15	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	365	psi	ASTM D412
Tensile Stress ² (300% Strain)	520	psi	ASTM D412
Tensile Strength ² (Break)	1750	psi	ASTM D412
Tensile Elongation ² (Break)	770	%	ASTM D412
Tear Strength ²	230	lbf/in	ASTM D624
Compression Set ³			ASTM D395B
73°F, 22 hr	24	%	
158°F, 22 hr	55	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	72		
Shore A, 5 sec, Injection Molded	70		

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	310 to 330	°F
Cylinder Zone 2 Temp.	330 to 360	°F
Cylinder Zone 3 Temp.	360 to 380	°F
Adapter Temperature	370 to 390	°F
Melt Temperature	370 to 390	°F
Die Temperature	390 to 405	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm. Screen Pack: 20/60/100/100/60/20. 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.

² Die C, 20 in/min

³ Type 1