



Medalist® MD-17135 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Medalist MD-17135 XRD1 is a high performance thermoplastic elastomer designed for medical and healthcare applications requiring high elasticity and excellent moldability. Medalist MD-17135 XRD1 is a low hardness, low density grade, available in NAT and colors, which can be sterilized and exhibits excellent adhesion to polypropylene. This grade is suitable for injection molding processing.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Moldability • Good Sterilizability	• Good Toughness • Halogen Free • Low Density • Low Flow • Low Hardness • Low Specific Gravity	• Lubricated • Radiation Sterilizable • Resilient • Slip • Without Fillers
Uses	• Bushings • Closures • Disposable Hospital Goods • Flexible Grips	• Grommets • Knobs • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.885		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (50% Strain)	165	psi	ASTM D412
Tensile Stress ² (100% Strain)	200	psi	ASTM D412
Tensile Stress ² (300% Strain)	310	psi	ASTM D412
Tensile Strength ² (Break)	590	psi	ASTM D412
Tensile Elongation ² (Break)	600	%	ASTM D412
Tear Strength ²	124	lbf/in	ASTM D624
Compression Set ³			ASTM D395
73°F, 22 hr	16	%	
158°F, 22 hr	28	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	42		
Shore A, 5 sec	40		

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Processing Information		
Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	360 to 440	°F
Processing (Melt) Temp	360 to 440	°F
Mold Temperature	80 to 120	°F
Injection Rate	Moderate-Fast	
Back Pressure	50.0 to 150	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 0.500	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.

² Die C, 20 in/min

³ Type 1