Medalist® MD-12341 AP NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-12341 AP NAT XRD1 is designed for medical and healthcare applications requiring high elasticity and tensile strength. Medalist MD-12341 AP NAT XRD1 is a medium hardness, low density, translucent thermoplastic elastomer that can be sterilized and is suitable for injection molding and extrusion, for dropper bulb applications.

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 Colorability • Good Processability • Good Sterilizability • Halogen Free	• Low Density • Low Specific Gravity • Medium Hardness • Radiation (Gamma) Resistant
Uses	• Flexible Grips • Handles	• Medical/Healthcare Applications • Pharmaceuticals	• Rubber Replacement
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Translucent	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	0.50	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	205	psi	ASTM D412
Tensile Stress (200% Strain)	300	psi	ASTM D412
Tensile Stress (300% Strain)	400	psi	ASTM D412
Tensile Strength (Break)	980	psi	ASTM D412
Tensile Elongation (Break)	610	%	ASTM D412
Compression Set			ASTM D395B
73°F, 22 hr	11	%	
158°F, 22 hr	28	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A	44		
Shore A, 5 sec	42		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
Middle Temperature	340 to 380	°F
Front Temperature	380 to 440	°F
Nozzle Temperature	380 to 440	°F
Processing (Melt) Temp	380 to 440	°F
Mold Temperature	70 to 125	°F
Back Pressure	50.0 to 150	psi
Screw Speed	50 to 100	rpm
Cushion	0.140 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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	340 to 370	°F
Cylinder Zone 2 Temp.	360 to 385	°F
Cylinder Zone 3 Temp.	365 to 400	°F
Cylinder Zone 4 Temp.	365 to 400	°F
Cylinder Zone 5 Temp.	400 to 440	°F
Die Temperature	400 to 440	°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.

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