Medalist® MD-34959 AP NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-34959 AP NAT XRD1 is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-34959 AP NAT XRD1 is a medium hardness, medium density, RoHS compliant grade that bonds well to PC, ABS, PC/ABS, COPE, PET, PBT, PMMA, ASA, SAN, and POM.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Conformable • Crack Resistant • Good Colorability	• Good Flexibility • Good Flow • Good Impact Resistance • Good Moldability • Good Scratch Resistance	• Good Toughness • Halogen Free • Low Compression Set • Medium Density • Medium Hardness
Uses	• Bonding • Flexible Grips • Gaskets • Medical Devices	• Medical Pump Seals • Medical/Healthcare Applications • Overmolding • Rubber Replacement	• Sealing Devices • Seals • Soft Touch Applications
Agency Ratings	• FDA Food Contact		
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.11		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (50% Strain)	250	psi	ASTM D412
Tensile Stress [2, 3] (100% Strain)	330	psi	ASTM D412
Tensile Stress [2] (300% Strain)	530	psi	ASTM D412
Tensile Strength [4] (Break)	1000	psi	ASTM D412
Tensile Elongation [2, 3] (Break)	750	%	ASTM D412
Tear Strength	197	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	16	%	
158°F, 22 hr	59	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness [3]			ASTM D2240
Shore A, 1 sec, Injection Molded	61		
Shore A, 5 sec, Injection Molded	59		

Revision Date: 9/26/2022

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Additional Information	Nominal Value	Unit
Adhesion to ABS		
Adhesion to PBT		
Adhesion to PC		
Adhesion to PC/ABS		
Adhesion to PMMA		
Adhesion to CoPE (Tritan®)		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	392 to 464	°F
Middle Temperature	392 to 482	°F
Front Temperature	428 to 500	°F
Nozzle Temperature	428 to 500	°F
Processing (Melt) Temp	428 to 500	°F
Mold Temperature	90 to 130	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is strongly suggested to enhance bondability.

Notes

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

[2] Die C, 20 in/min

[3] TBD

[4] 20 in/min

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