Medalist® MD-33950 AP NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-33950 AP is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-33950 AP is a low hardness, low density, RoHS compliant sterilizable 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	• Abrasion Resistant • Bondability • Chemical Resistant • Conformable • Crack Resistant • E-beam Sterilizable	• Ethylene Oxide Sterilizable • Good Colorability • Good Flexibility • Good Flow • Good Impact Resistance • Good Moldability	• Good Scratch Resistance • Good Toughness • Halogen Free • Low Density • Low Hardness • Radiation Sterilizable
Uses	• Bonding • Gaskets	• Medical/Healthcare Applications • Overmolding	• Soft Touch Applications
Agency Ratings	• ISO 10993-5	• ISO 13485	
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	0.942		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	13	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (100% Strain)	218	psi	ASTM D412
Tensile Stress [2] (300% Strain)	435	psi	ASTM D412
Tensile Strength [2] (Break)	1020	psi	ASTM D412
Tensile Elongation [2] (Break)	590	%	ASTM D412
Tear Strength [2]	170	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	11	%	
158°F, 22 hr	46	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	52		
Shore A, 5 sec, Injection Molded	50		
Additional Information	**Nominal Value**	**Unit**	
Adhesion to ABS			
Adhesion to PBT			
Adhesion to PC			
Adhesion to PC/ABS			
Adhesion to PMMA			

Revision Date: 5/2/2024

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Adhesion to COPE
Adhesion to POM

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	380 to 450	°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 Rate	Fast	
Back Pressure	150 to 250	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

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