

# Medalist® MD-34959 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, September 1, 2023

## General Information

### Product Description

Medalist MD-34959 is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-34959 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	

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.11	g/cm <sup>3</sup>	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)	1.72	MPa	ASTM D412
Tensile Stress <sup>2,3</sup> (100% Strain)	2.28	MPa	ASTM D412
Tensile Stress <sup>2</sup> (300% Strain)	3.65	MPa	ASTM D412
Tensile Strength <sup>4</sup> (Break)	6.89	MPa	ASTM D412
Tensile Elongation <sup>2,3</sup> (Break)	750	%	ASTM D412
Tear Strength	34.5	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	16	%	
70°C, 22 hr	59	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness <sup>3</sup>			ASTM D2240
Shore A, 1 sec, Injection Molded	61		
Shore A, 5 sec, Injection Molded	59		
Additional Information	Nominal Value	Unit	
Adhesion to ABS			
Adhesion to PBT			
Adhesion to PC			
Adhesion to PC/ABS			
Adhesion to PMMA			

Revision Date: 6/1/2021

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchasers assume all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or by others. There is no warranty of merchantability and there are no other warranties for the products described.

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## Teknor Apex Company - Thermoplastic Elastomer

Adhesion to CoPE (Tritan®)

### Legal Statement

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### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80	°C
Drying Time	3.0 to 4.0	hr
Rear Temperature	200 to 240	°C
Middle Temperature	200 to 250	°C
Front Temperature	220 to 260	°C
Nozzle Temperature	220 to 260	°C
Processing (Melt) Temp	220 to 260	°C
Mold Temperature	32 to 54	°C
Injection Pressure	1.38 to 5.52	MPa
Injection Rate	Fast	
Back Pressure	0.172 to 0.689	MPa
Screw Speed	50 to 100	rpm
Cushion	3.81 to 25.4	mm

### Injection Notes

Drying is strongly suggested to enhance bondability.

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 510 mm/min

<sup>3</sup> TBD

<sup>4</sup> 510 mm/min

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