

Medalist® MD-32245

Teknor Apex Company - Thermoplastic Elastomer

Saturday, September 14, 2024

General Information

Product Description

Medalist MD-32245 is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-32245 is a low hardness, low density, RoHS compliant grade suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • BPA Free • Good Adhesion • Good Colorability • Good Compression Set	• Good Flexibility • Good Impact Resistance • Good Moldability • Good Processability • Good Sterilizability	• High Elasticity • Low Density • Low Hardness • Low Specific Gravity
Uses	• Bonding • Flexible Grips • Gaskets • Handles	• Jacketing • Medical Devices • Medical/Healthcare Applications • Overmolding	• Pharmaceuticals • Rubber Replacement
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.908	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	1.52	MPa	ASTM D412
Tensile Stress (200% Strain)	2.21	MPa	ASTM D412
Tensile Stress (300% Strain)	2.93	MPa	ASTM D412
Tensile Strength (Break)	4.83	MPa	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	25.4	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	18	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	45		ASTM D2240
Additional Information	Nominal Value	Unit	
Adhesion to Nylon			

Legal Statement

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 purchaser assumes 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 others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	60	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	193 to 216	°C
Middle Temperature	260 to 282	°C
Front Temperature	271 to 293	°C
Nozzle Temperature	282 to 302	°C
Processing (Melt) Temp	282 to 302	°C
Mold Temperature	21 to 38	°C
Injection Pressure	1.38 to 5.52	MPa
Back Pressure	0.172 to 0.689	MPa
Screw Speed	50 to 100	rpm
Cushion	3.81 to 25.4	mm

Injection Notes

Moisture can degrade the material. Drying is suggested. This can be accomplished by placing the material in a desiccant dryer for 2 to 4 hours at 140°F.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	193 to 216	°C
Cylinder Zone 2 Temp.	249 to 271	°C
Cylinder Zone 3 Temp.	260 to 282	°C
Cylinder Zone 5 Temp.	271 to 293	°C
Die Temperature	271 to 293	°C

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

Teknor Apex Company Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants.

Engineered Thermoplastics (Chem Polymer)
505 Central Avenue
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000
Fax: 401-725-8095
Toll Free (U.S. only) 800-556-3864

www.teknorapex.com
info@teknorapex.com

Teknor Apex B.V.

Brightlands Chemelot Campus Umonderbaan
22

6167 RD Geleen, Netherlands

Phone: +31 46 7020 950
Fax: +31 46 7020 990

www.teknorapex.com
tpe@teknorapex.com

Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550
Fax: (86) 512-6288-8371

www.teknorapex.com
infotaap@teknorapex.com

Teknor Apex Asia Pacific PTE. LTD.

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544
Fax: (65) 6265-1821

www.teknorapex.com
infotaap@teknorapex.com

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