Medalist® MD-24160 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

General Information

Product Description

Medalist MD-24160 is a high performance thermoplastic vulcanizate intended for use in medical and healthcare applications. Medalist MD-24160 is a medium hardness, low density, RoHS compliant grade suitable for injection molding.

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 Moldability	• Good Sterilizability • Halogen Free • High Flow • Low Compression Set • Low Density	• Low Specific Gravity • Lubricated • Medium Hardness • Radiation (Gamma) Resistant
Uses	• Hospital Goods • Medical/Healthcare Applications • Pharmaceuticals	• Plugs • Rubber Replacement • Seals	• Soft Touch Applications
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Natural Color • Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.898	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (50% Strain)	1.59	MPa	ASTM D412
Tensile Stress (100% Strain)	2.00	MPa	ASTM D412
Tensile Strength (Break)	4.48	MPa	ASTM D412
Tensile Elongation (Break)	450	%	ASTM D412
Tear Strength [2]	24.5	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	19	%	
70°C, 22 hr	38	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec	61		
Shore A, 5 sec	59		

Legal Statement

Revision Date: 3/31/2022

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Injection	Nominal Value	Unit
Rear Temperature	149 to 182	°C
Middle Temperature	171 to 193	°C
Front Temperature	182 to 216	°C
Nozzle Temperature	193 to 221	°C
Processing (Melt) Temp	193 to 221	°C
Mold Temperature	21 to 43	°C
Injection Pressure	1.38 to 5.52	MPa
Back Pressure	0.172 to 0.517	MPa
Screw Speed	30 to 75	rpm
Cushion	3.81 to 25.4	mm

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).

Notes

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

[2] Die C, 510 mm/min

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@teknoapex.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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