

Medalist® MD-320

Teknor Apex Company - Thermoplastic Elastomer

Tuesday, May 19, 2015

General Information

Product Description

This compound is designed for overmold to copolyester.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Uses	• Medical/Healthcare Applications • Pharmaceuticals
Agency Ratings	• ISO 10993 Part 5
Appearance	• Translucent
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.950		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.024	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.021	in/in	ASTM D955
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	345	psi	ASTM D412
Tensile Stress (200% Strain)	440	psi	ASTM D412
Tensile Stress (300% Strain)	525	psi	ASTM D412
Tensile Strength (Break)	1050	psi	ASTM D412
Tensile Elongation (Break)	800	%	ASTM D412
Tear Strength	170	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	30	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	55		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	260 to 300	°F
Middle Temperature	280 to 320	°F
Front Temperature	300 to 340	°F
Nozzle Temperature	340 to 380	°F
Processing (Melt) Temp	340 to 380	°F
Mold Temperature	70.0 to 100	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

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.

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

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