TEKNOR APEX

Medalist® MD-315

Teknor Apex Company - Thermoplastic Elastomer

Thursday, May 5, 2016

General Information

Product Description
This compound is designed for overmold to nylon.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • 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	0.910		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.018	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.018	in/in	ASTM D955
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	220	psi	ASTM D412
Tensile Stress (200% Strain)	320	psi	ASTM D412
Tensile Stress (300% Strain)	425	psi	ASTM D412
Tensile Strength (Break)	700	psi	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	145	lbf/in	ASTM D624
Compression Set (73°F, 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			

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	380 to 420	°F
Middle Temperature	500 to 540	°F
Front Temperature	520 to 560	°F
Nozzle Temperature	540 to 575	°F
Processing (Melt) Temp	540 to 575	°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

Revision Date: 11/21/2014

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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.	380 to 420	°F
Cylinder Zone 2 Temp.	480 to 520	°F
Cylinder Zone 3 Temp.	500 to 540	°F
Cylinder Zone 5 Temp.	520 to 560	°F
Die Temperature	520 to 560	°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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