

Medalist® MD-310

Thermoplastic Elastomer

Teknor Apex Company

Message:

This compound is designed for overmold to HIPS, polycarbonate (PC), ABS and copolyester requiring clear elastomer, bonds to copolyester.

General Information			
Uses	Drug		
	Medical/nursing supplies		
Agency Ratings	ISO 10993 Part 5		
Appearance	Translucent		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.928	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	45	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	1.7	%	ASTM D955
Transverse flow	2.0	%	ASTM D955

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	45		ASTM D2240

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	2.21	MPa	ASTM D412
200% strain	2.48	MPa	ASTM D412
300% strain	2.93	MPa	ASTM D412
Tensile Strength (Break)	6.89	MPa	ASTM D412
Tensile Elongation (Break)	730	%	ASTM D412
Tear Strength	28.0	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	54	%	ASTM D395

Additional Information	Nominal Value
Adhesion to ABS	
Adhesion to HIPS	
Adhesion to PC	
Adhesion to PC/ABS	

Injection	Nominal Value	Unit
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Drying Temperature	60.0	°C
Drying Time	2.0 - 4.0	hr
Rear Temperature	127 - 149	°C
Middle Temperature	138 - 160	°C
Front Temperature	149 - 171	°C
Nozzle Temperature	171 - 193	°C
Processing (Melt) Temp	171 - 193	°C
Mold Temperature	21.1 - 37.8	°C
Injection Pressure	1.38 - 5.52	MPa
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm

Injection instructions

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.	138 - 149	°C
Cylinder Zone 2 Temp.	149 - 160	°C
Cylinder Zone 3 Temp.	160 - 182	°C
Cylinder Zone 5 Temp.	171 - 193	°C
Die Temperature	182 - 204	°C

Extrusion instructions

螺杆转速30 - 100 rpm

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

