



Medalist® MD-300

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-300 is designed for medical and healthcare applications requiring high elasticity and tensile strength. Medalist MD-300 is a low hardness, medium density, opaque grade, that can be sterilized. This grade was designed to be overmolded or multi-shot molded to PC, ABS, PC/ABS, and is suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Chlorine Resistant	• Ethylene Oxide Sterilizable • Good Processability • Good Sterilizability	• Halogen Free • Low Hardness • Medium Density
Uses	• Flexible Grips • Medical/Healthcare Applications	• Overmolding • Pharmaceuticals	• Plugs • Soft Touch Applications
Agency Ratings	• ISO 10993 Part 5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Translucent	
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.960		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/2.16 kg)	4.5	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	71.1	psi	
Flow : 100% Strain	104	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	203	psi	
Flow : Break	276	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	490	%	
Flow : Break	410	%	
Tear Strength ²			ASTM D624
Across Flow	47.4	lbf/in	
Flow	41.1	lbf/in	
Compression Set ³			ASTM D395
23°F, 22 hr	23	%	
158°F, 22 hr	49	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	24		
Shore A, 5 sec	21		

Additional Information

Adhesion to ABS
Adhesion to PC/ABS
Adhesion to PC

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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 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.

Notes

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

² Die C, 20 in/min

³ Type 1