



Medalist® MD-10150D AP NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-10150D AP NAT XRD1 is a high performance thermoplastic elastomer, available in NAT and colors, intended for use in medical and healthcare applications, including mask seals. Medalist MD-10105 AP is a hard, low density grade suitable for overmolding and injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Bondability • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion	• Good Colorability • Good Moldability • Good Processability • Good Sterilizability • Halogen Free	• High Elasticity • Low Density • Low Specific Gravity • Lubricated • Radiation (Gamma) Resistant
Uses	• Dental Applications • Flexible Grips	• Medical/Healthcare Applications • Overmolding	• Rubber Replacement • Seals
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break)	2610	psi	ASTM D412
Tensile Elongation ² (Break)	600	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	55		
Shore D, 5 sec, Injection Molded	53		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 340	°F
Middle Temperature	340 to 380	°F
Front Temperature	380 to 440	°F
Nozzle Temperature	380 to 440	°F
Processing (Melt) Temp	380 to 440	°F

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Injection	Nominal Value	Unit
Mold Temperature	70 to 125	°F
Injection Pressure	50.0 to 150	psi
Back Pressure	50.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.140 to 1.00	in

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, 20 in/min