



Medalist® MD-50157D (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-50157D is a high performance thermoplastic elastomer designed for demanding medical and healthcare applications requiring high clarity and excellent moldability, including medical drip chambers. Medalist MD-50157D is a high hardness, low density, transparent grade which can be sterilized and exhibits excellent adhesion to polypropylene.

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 Processability • Good Sterilizability • Halogen Free • High Hardness	• Low Density • Low Specific Gravity • Radiation Sterilizable
Uses	• Bladders • Dental Applications	• Disposable Hospital Goods • Medical/Healthcare Applications	• Pharmaceuticals • Rubber Replacement
Agency Ratings	• ISO 13485		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	15	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	2100	psi	ASTM D412
Tensile Strength ² (Break)	3000	psi	ASTM D412
Tensile Elongation ² (Break)	> 200	%	ASTM D412
Tear Strength ²	660	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec	60		
Shore D, 5 sec	57		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	380 to 400	°F
Middle Temperature	390 to 410	°F

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Injection	Nominal Value	Unit
Front Temperature	400 to 420	°F
Nozzle Temperature	430 to 450	°F
Processing (Melt) Temp	430 to 450	°F
Mold Temperature	80 to 100	°F
Injection Pressure	500 to 1200	psi
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 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