Medalist® MD-50152D (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Medalist MD-50152D XRD1 is a high performance thermoplastic elastomer designed for demanding medical and healthcare applications requiring good clarity and excellent moldability. Medalist MD-50152D XRD1 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	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	20	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ASTM D412
Across Flow : 100% Strain	1750	psi	
Flow : 100% Strain [2]	2150	psi	
Tensile Strength			ASTM D412
Across Flow : Break	2300	psi	
Flow : Break [2]	2640	psi	
Tensile Elongation			ASTM D412
Flow : Break	530	%	
Across Flow : Break [2]	700	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore D, 1 sec	53		
Shore D, 5 sec	52		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	300 to 320	°F
Middle Temperature	320 to 360	°F
Front Temperature	360 to 400	°F
Nozzle Temperature	380 to 430	°F
Processing (Melt) Temp	380 to 430	°F
Mold Temperature	60 to 80	°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

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

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