



Medalist® MD-30143 NAT (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-30143 NAT is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-30143 NAT is a medium hardness, low density, halogen-free, clear grade that bonds well to PC, ABS, and PC/ABS.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Good Adhesion • Good Clarity	• Good Colorability • Good Processability • Good Sterilizability • Halogen Free	• Low Density • Low Specific Gravity
Uses	• Medical/Healthcare Applications	• Overmolding	• Pharmaceuticals
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.930		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	45	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	130	psi	ASTM D412
Tensile Strength (Break)	1000	psi	ASTM D412
Tensile Elongation (Break)	780	%	ASTM D412
Tear Strength	140	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	54	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	45		
Shore A, 5 sec	43		

Additional Information

Adhesion to PC
Adhesion to ABS
Adhesion to PC/ABS

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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 and can interfere with bondability; 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.