



Medalist® MD-36048

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-36048 is a high performance thermoplastic elastomer specifically designed for healthcare and medical applications. Medalist MD-36048 is a medium hardness, low density, RoHS compliant grade that can be sterilized and is suitable for injection molding and extrusion. This material adheres to PC, ABS, and PC/ABS.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Acid Resistant • Alcohol Resistant • Antioxidant • Base Resistant • Bondability • Cleanable • Good Adhesion	• Good Color Stability • Good Colorability • Good Flexibility • Good Moldability • Good Processability • Good Processing Stability • High Elasticity	• High Elongation • Light Stabilized • Low Density • Medium Hardness • Pleasing Surface Appearance • UV Stabilized
Uses	• Flexible Grips • Medical/Healthcare Applications	• Overmolding • Pharmaceuticals	• Safety Equipment • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding	• Overmolding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.960		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.020	in/in	ASTM D955
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	1160	psi	ASTM D412
Tensile Elongation (Break)	650	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	48		ASTM D2240
Additional Information	Nominal Value	Unit	
Adhesion to ABS			
Adhesion to PC			
Adhesion to PC/ABS			

Processing Information

Injection	Nominal Value	Unit
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

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Injection	Nominal Value	Unit
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

The pellets need to be dried before processing. Desired moisture level is <0.05%.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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