



Medalist® MD-32245

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Medalist MD-32245 is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-32245 is a low hardness, low density, RoHS compliant grade suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • BPA Free • Good Adhesion • Good Colorability • Good Compression Set	• Good Flexibility • Good Impact Resistance • Good Moldability • Good Processability • Good Sterilizability	• High Elasticity • Low Density • Low Hardness • Low Specific Gravity
Uses	• Bonding • Flexible Grips • Gaskets • Handles	• Jacketing • Medical Devices • Medical/Healthcare Applications • Overmolding	• Pharmaceuticals • Rubber Replacement
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.910		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	220	psi	ASTM D412
Tensile Stress (200% Strain)	320	psi	ASTM D412
Tensile Stress (300% Strain)	425	psi	ASTM D412
Tensile Strength (Break)	700	psi	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Tear Strength	145	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	18	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	45		ASTM D2240
Additional Information	Nominal Value	Unit	
Adhesion to Nylon			

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	380 to 420	°F
Middle Temperature	500 to 540	°F
Front Temperature	520 to 560	°F
Nozzle Temperature	540 to 575	°F
Processing (Melt) Temp	540 to 575	°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. Drying is suggested. This can be accomplished by placing the material in a desiccant dryer for 2 to 4 hours at 140°F.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	380 to 420	°F
Cylinder Zone 2 Temp.	480 to 520	°F
Cylinder Zone 3 Temp.	500 to 540	°F
Cylinder Zone 5 Temp.	520 to 560	°F
Die Temperature	520 to 560	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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