Medalist® MD-17365 (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist MD-17365 is a high performance thermoplastic elastomer, available in NAT and colors, specifically designed for healthcare and medical applications. Medalist MD-17365 is a medium hardness, low density, lubricated, halogen-free grade that can be sterilized and is suitable for injection molding and extrusion.

General Information	
Features	Low Specific Gravity
	Without Fillers
	Low density
	Radiation disinfection
	Pressure cooker disinfection
	smoothness
	Ethylene oxide disinfection
	Anti-gamma radiation
	Good formability
	Good flexibility
	Good coloring
	Low liquidity
	Good chemical resistance
	Halogen-free
	Elastic
	Medium hardness
Uses	Disposable Hospital Goods
	Handle
	Plug
	Bushing
	Washer
	Connector
	Seals
	Airbag
	Soft handle
	Rubber substitution
	Knob
	Drug
	Medical/nursing supplies
Agency Ratings	ISO 10993 Part 5

RoHS Compliance	RoHS compliance
Appearance	Translucent
	Available colors
	Natural color
Forms	Particle
Processing Method	Extrusion
	Injection molding

Physical Nominal Value Unit Test Method Specific Gravity 0.888 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) 2.0 g/10 min ASTM D1238 Hardness Nominal Value Unit Test Method Durometer Hardness ASTM D2240 ASTM D2240 Shore A, 1 second, injection molding 66 ASTM D2240 Elastomers Nominal Value Unit Test Method Tensile Stress ASTM D412 ASTM D412 100% strain 2.48 MPa ASTM D412 Tensile Strength (Break) 11.7 MPa ASTM D412 Tensile Elongation (Break) 750 % ASTM D412 Compression Set 16 % ASTM D395 3°C, 22 hr 84 % ASTM D395				
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Tensile Stress 100% strain 2.48 MPa ASTM D412 300% strain 4.48 MPa ASTM D412 Tensile Strength (Break) 11.7 MPa ASTM D412 Tensile Elongation (Break) 750 % ASTM D412 Compression Set ASTM D395 23°C, 22 hr 16 % ASTM D395	Shore A, 5 seconds, injection molding	66		ASTM D2240
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Tensile Elongation (Break) 750 % ASTM D412 Compression Set ASTM D395 23°C, 22 hr 16 % ASTM D395	300% strain	4.48	MPa	ASTM D412
Compression Set ASTM D395 23°C, 22 hr 16 % ASTM D395	Tensile Strength (Break)	11.7	MPa	ASTM D412
23°C, 22 hr 16 % ASTM D395	Tensile Elongation (Break)	750	%	ASTM D412
	Compression Set			ASTM D395
70°C, 22 hr 84 % ASTM D395	23°C, 22 hr	16	%	ASTM D395
	70°C, 22 hr	84	%	ASTM D395

Legal statement

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Injection	Nominal Value	Unit	
Rear Temperature	127 - 149	°C	
Middle Temperature	138 - 160	°C	
Front Temperature	149 - 171	°C	
Nozzle Temperature	171 - 193	°C	
Processing (Melt) Temp	171 - 193	°C	
Mold Temperature	21 - 38	°C	
Injection Pressure	1.38 - 5.52	МРа	

Back Pressure	0.172 - 0.689	МРа	
Screw Speed	50 - 100	rpm	
Cushion	3.81 - 25.4	mm	
Injection instructions			
Drying is not necessary. However,	if moisture is a problem, dry the pellet	for 2 to 4 hours at 150°F (65°C).	
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	138 - 149	°C	
Cylinder Zone 2 Temp.	149 - 160	°C	
Cylinder Zone 3 Temp.	160 - 182	°C	
Cylinder Zone 4 Temp.	160 - 182	°C	
Cylinder Zone 5 Temp.	171 - 193	°C	

°C

Screw Speed: 30 to 100 rpm

Die Temperature

Extrusion instructions

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Susheng Import & Export Trading Co.,Ltd.

182 - 204

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

