Medalist® MD-53288 (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

The Medalist MD-53200 Series is a high performance thermoplastic elastomer series, designed to be a sustainable alternative to flexible PVC for medical tubing and film. Medalist MD-53288 is a low density, high hardness, clear, lubricated grade, available in Nat and color-matched, intended for use in medical and healthcare applications, with excellent processability and throughput in extruded tubing.

General Information	
Features	Low Specific Gravity High purity Low density Pressure cooker disinfection Good disinfection Ethylene oxide disinfection Anti-gamma radiation Workability, good Good melt strength Good coloring Good adhesion Good chemical resistance Kink resistance Definition, high Good toughness Lubrication Halogen-free High hardness
Uses	Clear Sheet Films Pipe Pipe fittings Rubber substitution Drug Medical/nursing supplies
Agency Ratings	ISO 10993 Part 5 ISO 13485
RoHS Compliance	RoHS compliance
Appearance	Available colors

	Clear/transparent

Forms	Particle
Processing Method	Extrusion cast film 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)	8.0	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shaw A, 1 sec	91		ASTM D2240
Shaw A, 5 seconds	89		ASTM D2240
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ASTM D412
50% strain	7.41	MPa	ASTM D412
100% strain	7.34	MPa	ASTM D412
300% strain	8.69	MPa	ASTM D412
Tensile Strength (Break)	15.6	MPa	ASTM D412
Tensile Elongation (Break)	610	%	ASTM D412
Tear Strength	80.6	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	29	%	ASTM D395
70°C, 22 hr	85	%	ASTM D395

Legal statement

Injection	Nominal Value	Unit
Rear Temperature	149 - 171	°C
Middle Temperature	171 - 193	°C
Front Temperature	193 - 227	°C
Nozzle Temperature	193 - 227	°C
Processing (Melt) Temp	193 - 227	°C
Mold Temperature	21 - 52	°C
Back Pressure	0.345 - 1.03	MPa
Screw Speed	50 - 100	rpm
Cushion	3.56 - 25.4	mm

Injection instructions		
Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).		
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	171 - 188	°C
Cylinder Zone 2 Temp.	182 - 196	°C
Cylinder Zone 3 Temp.	185 - 204	°C
Cylinder Zone 4 Temp.	185 - 204	°C
Cylinder Zone 5 Temp.	204 - 227	°C
Die Temperature	204 - 227	°C
Extrusion instructions		
Screw Speed: 30 to 100 rpm.Screen Pack Recommendation:60/200/200/60 to 60/200/400/400/200/60 mesh size.		

Recommended distributors for this material

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