

# Versaflex™ HC MT224

Thermoplastic Elastomer

PolyOne Corporation

## Message:

Versaflex™HC MT224 is a transparent high-performance TPE material, converted to medical catheter research and development. Versaflex™ HC MT224 adopts a special formula and does not use any plasticizer.  
New Products. Commercial norms have not yet been established.

- Flexible
- Special formula without plasticizer
- High transparency

General Information			
Features	Good flexibility		
	Definition, high		
Uses	Pipe fittings		
	Medical/nursing supplies		
Agency Ratings	FDA not rated		
	ISO 10993 Part 4		
	ISO 10993 Part 5		
	USP Class VI		
RoHS Compliance	RoHS compliance		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm <sup>3</sup>	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	75		ASTM D2240
Films	Nominal Value	Unit	Test Method
Oxygen Permeability (21°C, 1900 μm)	470	cm <sup>3</sup> ·mm/m <sup>2</sup> /atm/24 hr	ASTM D3985
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>1</sup>			ASTM D412
100% strain, 23°C <sup>2</sup>	3.23	MPa	ASTM D412
300% strain, 23°C <sup>3</sup>	5.33	MPa	ASTM D412
Tensile Strength (Break, 23°C)	9.38	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	530	%	ASTM D412
Compression Set			ASTM D395B
22°C, 22 hr	19	%	ASTM D395B
45°C, 22 hr	52	%	ASTM D395B

70°C, 22 hr	70	%	ASTM D395B
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity			ASTM D3835
200°C, 1340 sec <sup>-1</sup>	176	Pa·s	ASTM D3835
200°C, 11200 sec <sup>-1</sup>	36.0	Pa·s	ASTM D3835
Extrusion	Nominal Value	Unit	
Melt Temperature	182 - 204	°C	
Die Temperature	171 - 199	°C	
Extrusion instructions			

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Versaflex™ HC MT224. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials. Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP). Drying is not Required. Rear: 330F-370F Center: 350F-400F Front: 360F-420F Screw: 100-500RPM

#### NOTE

1. 2 hours
2. Mouth die c
3. C mould

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#### Recommended distributors for this material

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