

PolyOne Versaflex™ HC MT224 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Versaflex™ HC MT224 is an exceptionally clear, high performance TPE developed for medical tubing for healthcare. Versaflex™ HC MT224 has been specially formulated without the use of any plasticizers. New Product. Commercial specifications have not been established. - Flexible - Formulated without plasticizers - High ClarityColor 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 Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Versaflex-HC-MT224-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.888 g/cc	0.888 g/cc	ASTM D792
Oxygen Transmission	470 cc-mm/m ² -24hr-atm @Thickness 1.90 mm, Temperature 21.0 °C	1190 cc-mil/100 in ² - 24hr-atm @Thickness 0.0748 in, Temperature 69.8 °F	ASTM D3985
Viscosity	36000 cP @Shear Rate 11200 1/s, Temperature 200 °C	36000 cP @Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
	176000 cP @Shear Rate 1340 1/s, Temperature 200 °C	176000 cP @Shear Rate 1340 1/s, Temperature 392 °F	ASTM D3835

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	75	75	10 sec; ASTM D2240
Tensile Strength at Break	9.38 MPa @Temperature 23.0 °C	1360 psi @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tensile Stress	3.23 MPa @Strain 100 %, Temperature 23.0 °C	468 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	5.33 MPa	773 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	530 % @Temperature 23.0 °C	530 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Compression Set	19 % @Temperature 22.0 °C, Time 79200 sec	19 % @Temperature 71.6 °F, Time 22.0 hour	ASTM D395B
	52 % @Temperature 45.0 °C, Time 79200 sec	52 % @Temperature 113 °F, Time 22.0 hour	ASTM D395B
	70 % @Temperature 70.0 °C, Time 79200 sec	70 % @Temperature 158 °F, Time 22.0 hour	ASTM D395B

Processing Properties	Metric	English	Comments
Die Temperature	171 - 199 °C	340 - 390 °F	
Melt Temperature	182 - 204 °C	360 - 399 °F	

Descriptive Properties	Value	Comments
Agency Ratings	FDA Unspecified Rating	
	ISO 10993 Part 4	
	ISO 10993 Part 5	
	USP Class VI	
Appearance	Clear/Transparent	
Features	Good Flexibility	
	High Clarity	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Extrusion	
Regional Availability	Africa & Middle East	

Descriptive Properties	Asia Pacific Value	Comments
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Medical/Healthcare Applications	
	Tubing	

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