

## PolyOne Versaflex™ HC MT307 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

### Material Notes:

Versaflex™ HC MT307 is an extrudable, autoclavable TPE developed for medical tubing applications in healthcare. New Product.

Commercial specifications have not been established. - Autoclavable - Flexible - Kink Resistant Rear: 330 to 370F Center: 350 to 400F

Front: 360 to 420F Screw speed: 100 to 500 RPM Drying is not required Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Versaflex™ HC MT307. 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). The use of regrind is not recommended for Versaflex™ HC MT307. Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Versaflex-HC-MT307-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-Versaflex-HC-MT307-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.888 g/cc	0.888 g/cc	ASTM D792
Viscosity	10000 cP	10000 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	52000 cP	52000 cP	ASTM D3835
	@Shear Rate 1340 1/s, Temperature 200 °C	@Shear Rate 1340 1/s, Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	68	68	10 sec; ASTM D2240
Tensile Strength at Break	6.00 MPa	870 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	2.69 MPa	390 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
Tensile Stress	4.55 MPa	660 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	

Mechanical Properties	Metric	English	Comments
Elongation at Break			Die C2 hr, ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compression Set	17 %	17 %	ASTM D395B
	@Temperature 22.0 °C, Time 79200 sec	@Temperature 71.6 °F, Time 22.0 hour	
	58 %	58 %	ASTM D395B
	@Temperature 70.0 °C, Time 79200 sec	@Temperature 158 °F, Time 22.0 hour	
	69 %	69 %	ASTM D395B
	@Temperature 100 °C, Time 79200 sec	@Temperature 212 °F, Time 22.0 hour	

Processing Properties	Metric	English	Comments
Die Temperature	182 - 216 °C	360 - 421 °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	Translucent	
Features	Autoclavable	
	Good Flexibility	
	Kink Resistant	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Extrusion	
Regional Availability	Africa & Middle East	
	Asia Pacific	

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

## Contact Songhan Plastic Technology Co.,Ltd.

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