

## PolyOne Versaflex™ CL E85 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

### Material Notes:

Versaflex™ CL E85 is an exceptional clarity, high performance and autoclavable solution ideal for healthcare and food packaging.

Versaflex™ CL E85 is also formulated without the use of 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™ CL E85. 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 Zone = 330-370F Center Zone

= 350-400F Front Zone = 360-420F Screw Speed = 100-500 RPM Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Versaflex-CL-E85-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-Versaflex-CL-E85-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.888 g/cc	0.888 g/cc	ASTM D792
Oxygen Transmission	380 cc-mm/m <sup>2</sup> -24hr-atm @Thickness 1.80 mm, Temperature 21.0 °C	965 cc-mil/100 in <sup>2</sup> - 24hr-atm @Thickness 0.0709 in, Temperature 69.8 °F	ASTM D3985
Oxygen Transmission Rate	3200 cc/m <sup>2</sup> /day @Thickness 1.80 mm, Temperature 21.0 °C	206 cc/100 in <sup>2</sup> /day @Thickness 0.0709 in, Temperature 69.8 °F	ASTM D3985
Viscosity	39000 cP @Shear Rate 11200 1/s, Temperature 200 °C	39000 cP @Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
	180000 cP @Shear Rate 1340 1/s, Temperature 200 °C	180000 cP @Shear Rate 1340 1/s, Temperature 392 °F	ASTM D3835

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	85	85	10 sec; ASTM D2240
Tensile Strength at Break	10.7 MPa @Temperature 23.0 °C	1550 psi @Temperature 73.4 °F	Die C2 hr; ASTM D412
	5.18 MPa	751 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	8.00 MPa	1160 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	
Elongation at Break	450 %	450 %	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compression Set	20 %	20 %	ASTM D395B
	@Temperature 22.0 °C, Time 79200 sec	@Temperature 71.6 °F, Time 22.0 hour	
	51 %	51 %	ASTM D395B
	@Temperature 45.0 °C, Time 79200 sec	@Temperature 113 °F, Time 22.0 hour	
	67 %	67 %	ASTM D395B
	@Temperature 70.0 °C, Time 79200 sec	@Temperature 158 °F, Time 22.0 hour	
	72 %	72 %	ASTM D395B
	@Temperature 100 °C, Time 79200 sec	@Temperature 212 °F, Time 22.0 hour	

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 21 CFR 177.1210	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
	ISO 10993 Part 4	
	ISO 10993 Part 5	
	USP Class VI	
Appearance	Clear/Transparent	
Features	Good Flexibility	
	High Clarity	
Forms	Pellets	

Descriptive Properties	TPE Value	Comments
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Extrusion	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Bottles	
	Film	
	Medical/Healthcare Applications	
	Personal Care	

## Contact Songhan Plastic Technology Co.,Ltd.

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