

## PolyOne Versaflex™ FFC 2882-87 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

### Material Notes:

Versaflex™ FFC 2882-87 is designed to pass several fatty food extraction conditions identified in EU Directive 2002/72/EC, FDA 21 CFR 177.2600, and GB 4806.1-94. Versaflex™ FFC 2882-87 will also overmold and co-extrude to polypropylene. Rear: 380-400F Center: 390-420F Front: 400-440F Screw: 100-500rpm Color concentrates based on polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (LDPE) are most suitable for coloring Versaflex™ FFC 2882-87. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25-40 g/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 the use of 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). Regrind levels up to 20% can be used with Versaflex™ FFC 2882-87 with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt temperature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer. Versaflex™ FFC 2882-87 has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer. Drying is not Required Injection Speed: 1 to 3 in/sec 1st Stage - Boost Pressure: 500 to 700 psi 2nd Stage - Hold Pressure: 10 to 30% of Boost Hold Time (Thick Part): 2 to 4 sec Hold Time (Thin Part): 1 to 2 sec Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Versaflex-FFC-2882-87-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-Versaflex-FFC-2882-87-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.878 g/cc	0.878 g/cc	ASTM D792
Viscosity	34800 cP	34800 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.0090 - 0.015 cm/cm	0.0090 - 0.015 in/in	Injection Molded; ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	88	88	10 sec; ASTM D2240
Tensile Strength at Break	9.03 MPa	1310 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	7.25 MPa	1050 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
	7.65 MPa	1110 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	700 % @Temperature 23.0 °C	700 % @Temperature 73.4 °F	Die C2 hr; ASTM D412

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	193 - 204 °C	379 - 399 °F	
Middle Barrel Temperature	199 - 216 °C	390 - 421 °F	
Front Barrel Temperature	204 - 227 °C	399 - 441 °F	
Nozzle Temperature	210 - 238 °C	410 - 460 °F	
Die Temperature	216 - 238 °C	421 - 460 °F	
Melt Temperature	204 - 227 °C	399 - 441 °F	
	204 - 227 °C	399 - 441 °F	
Mold Temperature	12.8 - 32.2 °C	55.0 - 90.0 °F	
Back Pressure	0.000 - 0.552 MPa	0.000 - 80.1 psi	
Screw Speed	50 - 100 rpm	50 - 100 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	EU 2002/72/EC 0.5 hrs at 40C in Iso-octane	Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter. Extraction testing was performed at an independent laboratory and conducted on injection molded plaques of said product. Test results are available from GLS Thermoplastic
	EU 2002/72/EC 3 hrs at 60C in 95% ethanol	Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter. Extraction testing was performed at an independent laboratory and conducted on injection molded plaques of said product. Test results are available from GLS Thermoplastic
	FDA 21 CFR 177.2600 7hrs, 2hrs distilled water	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter. Extraction testing was performed at an independent laboratory and conducted on injection molded plaques of said product. Test results are available from GLS Thermoplastic
	FDA 21 CFR 177.2600 7hrs, 2hrs n-hexane	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter. Extraction testing was performed at an independent laboratory and conducted on injection molded plaques of said product. Test results are available from GLS Thermoplastic
Appearance	Translucent	
Features	Food Contact Acceptable	
Forms	Pellets	

<b>Generic Descriptive Properties</b>	<b>TPE Value</b>	<b>Comments</b>
<b>Generic Name</b>	Thermoplastic Elastomer (TPE)	
<b>Manufacturer / Supplier</b>	GLS Thermoplastic Elastomers	
<b>Processing Method</b>	Extrusion	
	Injection Molding	
<b>Regional Availability</b>	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
<b>RoHS Compliance</b>	RoHS Compliant	
<b>Suggested Max Regrind</b>	20%	
<b>Uses</b>	Consumer Applications	
	Containers	
	Gaskets	
	Kitchenware	
	Non-specific Food Applications	
	Overmolding	

## Contact Songhan Plastic Technology Co.,Ltd.

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