Versaflex™ FFC 2882-50 EU

Thermoplastic Elastomer

Key Characteristics

Product Description			
Versaflex™ FFC 2882-50 EU is designed to pass several fatty food extraction conditions identified in EU 10/2011. Versaflex™ FFC 2882-50 EU will also overmold and co-extrude to polypropylene.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable		
Uses	• Consumer Applications • Containers	• Gaskets • Kitchenware	• Non-specific Food Applications • Overmolding
Agency Ratings	• EU 10/2011 [1]	• FDA 21 CFR 177.2600 [1]	
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.892	0.892	ISO 1183
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain, 73°F (23°C))	174 psi	1.20 MPa	ISO 37
Tensile Stress (300% Strain, 73°F (23°C))	319 psi	2.20 MPa	ISO 37
Tensile Strength (Break, 73°F (23°C))	1380 psi	9.50 MPa	ISO 37
Tensile Elongation (Break, 73°F (23°C))	550 %	550 %	ISO 37
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 3 sec)	52	52	DIN 53505
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			Internal Method
392°F (200°C), 11200 sec^-1	40.2 Pa·s	40.2 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	374 to 401 °F	190 to 205 °C
Middle Temperature	392 to 419 °F	200 to 215 °C
Front Temperature	401 to 437 °F	205 to 225 °C
Nozzle Temperature	410 to 455 °F	210 to 235 °C
Processing (Melt) Temp	401 to 437 °F	205 to 225 °C
Mold Temperature	68 to 140 °F	20 to 60 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

Injection Notes

Color concentrates based on polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (LDPE) are most suitable for coloring Versaflex™ FFC 2882-50 EU. 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 2882-50 EU 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 2882-50 EU 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

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	401 to 437 °F	205 to 225 °C
Die Temperature	419 to 455 °F	215 to 235 °C

Extrusion Notes

Rear: 190-205°C
Center: 195-215°C
Front: 205-225°C
Screw: 100-500 rpm

Notes

[1] Product rating may be influenced by end product design and/or conditions of use. Please contact GLS Thermoplastic Elastomers for information addressing EU (EU, 10/2011) and FDA (21 CFR 177.2600) compliance.
Extraction testing was performed at an independent laboratory and conducted on injection molded plaques of said product. Test results are available from GLS Thermoplastic Elastomers upon request. It is still Customer's responsibility to test for final part compliance.

[2] Typical values are not to be construed as specifications.