

Versaflex™ FFC 2882-70

Thermoplastic Elastomer

Key Characteristics

Product Description			
Versaflex™ FFC 2882-70			
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 ²	• NSF STD-51 ³
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Translucent	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties⁴

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.880	0.880	ASTM D792
Molding Shrinkage - Flow	0.011 to 0.017 in/in	1.1 to 1.7 %	ASTM D955
Molding Shrinkage - Across Flow	0.011 to 0.015 in/in	1.1 to 1.5 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{5,6} (300% Strain, 73°F (23°C))	428 psi	2.95 MPa	ASTM D412
Tensile Strength ^{5,6} (Break, 73°F (23°C))	900 psi	6.21 MPa	ASTM D412
Tensile Elongation			ASTM D412
Break	1200 %	1200 %	
Break, 73°F (23°C) ^{5,6}	1200 %	1200 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	73	73	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec ⁻¹	38.6 Pa·s	38.6 Pa·s	ASTM D3835

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	380 to 400 °F	193 to 204 °C
Middle Temperature	390 to 420 °F	199 to 216 °C
Front Temperature	400 to 440 °F	204 to 227 °C
Nozzle Temperature	410 to 460 °F	210 to 238 °C
Processing (Melt) Temp	400 to 440 °F	204 to 227 °C
Mold Temperature	55 to 90 °F	13 to 32 °C

Copyright © 2020 Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. Avient makes no warranties or guarantees respecting suitability of either Avient's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. Avient MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

Injection	Typical Value (English)	Typical Value (SI)
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 2882-70. 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 2882-70 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 2882-70 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	400 to 440 °F	204 to 227 °C
Die Temperature	420 to 460 °F	216 to 238 °C

Extrusion Notes

Rear: 380-400F
 Center: 390-420F
 Front: 400-440F
 Screw: 100-500rpm

Notes

- ¹ Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter.
- ² Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
- ³ US produced, black only is NSF-51. Please contact GLS Thermoplastic Elastomers for a copy of the NSF compliance letter.
- ⁴ Typical values are not to be construed as specifications.
- ⁵ Die C
- ⁶ 2 hr

CONTACT INFORMATION**North America**

Avon Lake, United States
 33587 Walker Road
 Avon Lake, OH, United States ,
 44012
 +1 440 930 1000
 +1 844 4AVIENT

South America

Sao Paulo, Brazil
 Av. Francisco Nakasato, 1700
 13295-000 Itupeva
 Sao Paulo, Brazil
 +55 11 4593 9200

Asia

Shanghai, China
 2F, Block C
 200 Jinsu Road
 Pudong, 201206
 Shanghai, China
 +86 (0) 21 6028 4888

Europe

Pommerloch, Luxembourg
 19 Route de Bastogne
 Pommerloch, Luxembourg , L-9638
 +352 269 050 35



avient.com

Copyright © 2020 Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. Avient makes no warranties or guarantees respecting suitability of either Avient's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. Avient MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.