

# Versaflex™ 9570-1

## Thermoplastic Elastomer

### Key Characteristics

#### Product Description

Versaflex™ 9570-1 has exceptional flow properties and surface aesthetics for a variety of applications.

- Excellent Flow for Long, Thin Flow Paths
- Exceptional Colorability
- Overmold Adhesion to Polypropylene
- Superior Surface Aesthetics

#### General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Colorability	• Good Flow	• Good Surface Finish
Agency Ratings	• FDA Unspecified Rating		
Appearance	• Natural Color		
Processing Method	• Injection Molding		

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.990	0.990	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	7.7 g/10 min	7.7 g/10 min	
200°C/5.0 kg	57 g/10 min	57 g/10 min	
Molding Shrinkage - Flow	9.0E-3 to 0.016 in/in	0.90 to 1.6 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress <sup>2,3</sup> (100% Strain, 73°F (23°C))	310 psi	2.14 MPa	ASTM D412
Tensile Stress <sup>2,3</sup> (300% Strain, 73°F (23°C))	500 psi	3.45 MPa	ASTM D412
Tensile Strength <sup>2,3</sup> (Break, 73°F (23°C))	800 psi	5.52 MPa	ASTM D412
Tensile Elongation <sup>2,3</sup> (Break, 73°F (23°C))	600 %	600 %	ASTM D412
Compression Set (73°F (23°C), 22 hr)	26 %	26 %	ASTM D395B
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	69	69	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 1340 sec <sup>-1</sup>	33.0 Pa·s	33.0 Pa·s	
392°F (200°C), 11200 sec <sup>-1</sup>	7.40 Pa·s	7.40 Pa·s	

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.

## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	300 to 370 °F	149 to 188 °C
Middle Temperature	320 to 390 °F	160 to 199 °C
Front Temperature	340 to 410 °F	171 to 210 °C
Nozzle Temperature	340 to 410 °F	171 to 210 °C
Mold Temperature	60 to 80 °F	16 to 27 °C
Back Pressure	0.00 to 100 psi	0.00 to 0.689 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

## Injection Notes

Color concentrates with polypropylene (PP) carrier are most suitable for coloring Versaflex™ 9570-1. 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. Concentrates based on PVC should not be used. 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™ 9570-1 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™ 9570-1 has good melt stability. Empty the barrel for idle periods of fifteen (15) minutes or longer.

Drying is not Required

Injection Speed: 1 to 5 in/sec  
 1st Stage - Boost Pressure: 300 to 700 psi  
 2nd Stage - Hold Pressure: 30% of Boost  
 Hold Time (Thick Part): 4 to 10 sec  
 Hold Time (Thin Part): 1 to 3 sec

## Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Die C

<sup>3</sup> 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.