

# Versaflex™ CE 3120-80N

## Thermoplastic Elastomer

### Key Characteristics

#### Product Description

Versaflex™ CE 3120-80N is targeted for consumer electronics applications where excellent abrasion resistance, chemical resistance and silky feel are required.

Versaflex™ CE 3120-80N can also overmold to a variety of substrates including PC, ABS, PC/ABS, and Copolyester.

#### General

Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific	• Europe	• North America
Features	• Specialty Grade		
Uses	• Consumer Applications	• Overmolding	• Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.08	1.08	ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 8.0E-3 in/in	0.20 to 0.80 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress <sup>2, 3</sup> (300% Strain, 73°F (23°C))	1000 psi	6.89 MPa	ASTM D412
Tensile Strength <sup>2, 3</sup> (Break, 73°F (23°C))	1960 psi	13.5 MPa	ASTM D412
Tensile Elongation <sup>2, 3</sup> (Break, 73°F (23°C))	750 %	750 %	ASTM D412
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	79	79	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec <sup>-1</sup>	32.0 Pa·s	32.0 Pa·s	ASTM D3835

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	120 to 140 °F	49 to 60 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.020 to 0.030 %	0.020 to 0.030 %
Rear Temperature	350 to 370 °F	177 to 188 °C
Middle Temperature	360 to 390 °F	182 to 199 °C
Front Temperature	370 to 420 °F	188 to 216 °C
Nozzle Temperature	380 to 430 °F	193 to 221 °C
Processing (Melt) Temp	380 to 425 °F	193 to 218 °C
Mold Temperature	55 to 130 °F	13 to 54 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 80 rpm	50 to 80 rpm

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 Notes**

Typical colorant letdown ratios are 50:1 to 25:1 - loading levels should be as low as possible to minimize the effect on adhesion. A high color match consistency can be obtained by the use of precolored compounds available from GLS. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials. Contact GLS for more information on appropriate color concentrate base resins.

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

Versaflex CE 3120-80N should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°F

Hot Runners: 380°F-440°F

Hot Tip: 380°F-450°F

Injection Speed: 0.5 to 2 in/sec

1st Stage - Boost Pressure: 500 to 1,000 psi

2nd Stage - Hold Pressure: 20-60% of Boost

Hold Time (Thick Part): 2 to 4 sec

Hold Time (Thin Part): 1 to 2 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.