



# Versaflex™ CE 3115

## Thermoplastic Elastomer

### Key Characteristics

#### Product Description

Versaflex™ CE 3115 is targeted for consumer electronics applications where excellent abrasion resistance, chemical resistance and silky feel are required.  
Versaflex™ CE 3115 can also overmold to a variety of substrates including PC, ABS, PC/ABS, and Copolyester.

#### General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Abrasion Resistance • Good Chemical Resistance • Good Colorability	• Good Processability • Good UV Resistance • Low Friction	• Pleasing Surface Appearance
Uses	• Appliances • Communication Applications • Computer Components • Consumer Applications	• Electrical/Electronic Applications • Flexible Grips • Overmolding • Soft Touch Applications	• Thick-walled Parts • Thin-walled Parts
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
Specific Gravity	1.17	1.17 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	1.0 to 12 g/10 min	1.0 to 12 g/10 min	
200°C/5.0 kg	15 to 25 g/10 min	15 to 25 g/10 min	
Molding Shrinkage - Flow (380°F (193°C))	0.0090 to 0.015 in/in	0.90 to 1.5 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress <sup>2, 3</sup> (100% Strain, 73°F (23°C))	445 psi	3.07 MPa	ASTM D412
Tensile Stress <sup>2, 3</sup> (300% Strain, 73°F (23°C))	740 psi	5.10 MPa	ASTM D412
Tensile Strength <sup>2, 3</sup> (Break, 73°F (23°C))	2200 psi	15.2 MPa	ASTM D412
Tensile Elongation <sup>2, 3</sup> (Break, 73°F (23°C))	640 %	640 %	ASTM D412
Tear Strength <sup>2, 3</sup> (73°F (23°C))	300 lbf/in	52.5 kN/m	ASTM D624
Compression Set <sup>4</sup> (73°F (23°C), 22.0 hr)	24 %	24 %	ASTM D395
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	65	65	ASTM D2240
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.0591 to 0.512 in (1.50 to 13.0 mm), All Colors	HB	HB	
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec <sup>-1</sup>	16.0 Pa·s	16.0 Pa·s	

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Additional Information	Typical Value (English)	Typical Value (SI)	Test Method
Mass Loss - 500 Cycle Abrasion Resistance <sup>5</sup> (73°F (23°C))	2.0 mg	2.0 mg	ASTM D3389

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	125 to 140 °F	51.7 to 60.0 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	< 0.030 %	< 0.030 %
Suggested Max Regrind	20 %	20 %
Rear Temperature	340 to 360 °F	171 to 182 °C
Middle Temperature	360 to 410 °F	182 to 210 °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	55.0 to 85.0 °F	12.8 to 29.4 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

#### Injection Notes

Color concentrates with EVA carriers are most suitable for coloring Versaflex™ CE 3115. Typical 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.

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 3115 should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°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

<sup>4</sup> 25% deflection

<sup>5</sup> Abrasion wheel: H-18  
 Mass Lost

**CONTACT INFORMATION****Americas**

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

**Asia**

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

**Europe**

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



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www.polyone.com

**PolyOne Americas**

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

**PolyOne Asia**

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

**PolyOne Europe**

6 Giällewee  
+352 269 050 35

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