

Versaflex™ CE 3130-80N

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ CE 3130-80N is targeted for consumer electronics applications where excellent surface appearance with long-term life, excellent abrasion resistance, performed UV and stain resistance, chemical resistance and silky feel are required. Versaflex™ CE 3130-80N 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	• Good Colorability • Good Processability	• Low Friction • Pleasing Surface Appearance	
Uses	• Consumer Applications	• Electrical/Electronic Applications	• Overmolding
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

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 (300% Strain)	972 psi	6.70 MPa	ASTM D412
Tensile Strength ^{2, 3} (Break, 73°F (23°C))	2480 psi	17.1 MPa	ASTM D412
Tensile Elongation ^{2, 3} (Break, 73°F (23°C))	860 %	860 %	ASTM D412
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	80	80	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec ⁻¹	30.6 Pa·s	30.6 Pa·s	ASTM D3835

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.020 to 0.030 %	0.020 to 0.030 %
Suggested Max Regrind	20 %	20 %
Rear Temperature	340 to 360 °F	171 to 182 °C
Middle Temperature	360 to 430 °F	182 to 221 °C
Front Temperature	370 to 440 °F	188 to 227 °C
Nozzle Temperature	380 to 460 °F	193 to 238 °C
Processing (Melt) Temp	380 to 450 °F	193 to 232 °C
Mold Temperature	55 to 110 °F	13 to 43 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa

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Injection	Typical Value (English)	Typical Value (SI)
Screw Speed	50 to 100 rpm	50 to 100 rpm

Injection Notes

Color concentrates with EVA or TPU carriers are most suitable for coloring Versaflex CE 3130-80N. 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).

Regrind levels up to 20% can be used with Versaflex CE 3130-80N 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 CE 3130-80N should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°F

Injection Speed: 0.5 to 4 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

¹ Typical values are not to be construed as specifications.

² Die C

³ 2 hr

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