



# Versaflex™ OM 9-801N

## Thermoplastic Elastomer

### Key Characteristics

#### Product Description

Versaflex™ OM 9-801N is designed for overmolding onto a wide variety of substrates including PC, ABS, PC/ABS, HIPS, PPO, HDPE, acetal, acrylic and copolyester.

- Bonds to a Variety Of Substrates
- Rubbery Feel
- Soft Touch
- Very Good Surface Aesthetics

#### General

Material Status	• Commercial: Active				
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America		
Features	• Good Surface Finish				
Uses	• Flexible Grips • General Purpose	• Overmolding • Soft Touch Applications	• Sporting Goods		
Agency Ratings	• FDA Unspecified Rating	• UL 94 .QMFZ2.E193281			
RoHS Compliance	• RoHS Compliant				
Automotive Specifications	• FMVSS 302				
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	1.04	1.04 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	22 g/10 min	22 g/10 min	
200°C/5.0 kg	100 g/10 min	100 g/10 min	
Molding Shrinkage - Flow	0.0030 to 0.0090 in/in	0.30 to 0.90 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress <sup>2, 3</sup> (100% Strain, 73°F (23°C))	210 psi	1.45 MPa	ASTM D412
Tensile Stress <sup>2, 3</sup> (300% Strain, 73°F (23°C))	290 psi	2.00 MPa	ASTM D412
Tensile Strength <sup>2, 3</sup> (Break, 73°F (23°C))	610 psi	4.21 MPa	ASTM D412
Tensile Elongation <sup>2, 3</sup> (Break, 73°F (23°C))	750 %	750 %	ASTM D412
Tear Strength	100 lbf/in	17.5 kN/m	ASTM D624
Compression Set (73°F (23°C), 22.0 hr)	43 %	43 %	ASTM D395B
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	47	47	ASTM D2240
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating - UL (0.0591 in (1.50 mm))	HB	HB	UL 94
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec <sup>-1</sup>	15.6 Pa·s	15.6 Pa·s	

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## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	360 to 380 °F	182 to 193 °C
Middle Temperature	370 to 395 °F	188 to 202 °C
Front Temperature	380 to 400 °F	193 to 204 °C
Nozzle Temperature	390 to 425 °F	199 to 218 °C
Mold Temperature	70.0 to 100 °F	21.1 to 37.8 °C
Back Pressure	25.0 to 50.0 psi	0.172 to 0.345 MPa
Screw Speed	75 to 125 rpm	75 to 125 rpm

## Injection Notes

Color concentrates with polyethylene (PE) or EVA carriers are most suitable for coloring Versaflex™ OM 9-801N. 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) polystyrene (PS) or polypropylene (PP).

Regrind levels up to 20% can be used with Versaflex™ OM 9-801N 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™ OM 9-801N has good 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 5 - 8 minutes or longer.

Drying is not Required

Injection Speed: 0.5 to 3 in/sec  
 1st Stage - Boost Pressure: 500 to 900 psi  
 2nd Stage - Hold Pressure: 70% 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

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