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, 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	• Latin America • North America	
Features	• Good Surface Finish		
Uses	• Flexible Grips • General Purpose	• Overmolding • Soft Touch Applications	• Sporting Goods
Agency Ratings	• FDA	• UL 94	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FMVSS 302		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.04	1.04	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	3.0E-3 to 9.0E-3 in/in	0.30 to 0.90 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	210 psi	1.45 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	261 psi	1.80 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	651 psi	4.49 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	820 %	820 %	ASTM D412
Tear Strength	100 lbf/in	17.5 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 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 (0.06 in (1.5 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^-1	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 to 100 °F	21 to 38 °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. 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

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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