



Versaflex™ OM 9-8045N

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 9-8045N is designed for overmolding onto a wide variety of substrates including PC, ABS, PC/ABS, HIPS, PPO, HDPE, acetal, acrylic and copolyester.

New Product. Commercial specifications have not been established.

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

General

Material Status	• Proprietary and/or Private
Regional Availability	• Asia Pacific
Features	• Good Surface Finish
Appearance	• Natural Color
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.05	1.05 g/cm ³	ASTM D792
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 ^{2, 3} (300% Strain, 73°F (23°C))	290 psi	2.00 MPa	ASTM D412
Tensile Strength ^{2, 3} (Break, 73°F (23°C))	700 psi	4.83 MPa	ASTM D412
Tensile Elongation ^{2, 3} (Break, 73°F (23°C))	850 %	850 %	ASTM D412
Tear Strength	100 lbf/in	17.5 kN/m	ASTM D624
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	47	47	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec ⁻¹	17.0 Pa·s	17.0 Pa·s	ASTM D3835

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

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Injection Notes

Color concentrates with polyethylene (PE) or EVA carriers are most suitable for coloring Versaflex™ OM 9-8045N. 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 9-8045N 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 9-8045N 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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