Versaflex™ OM 9-802CL N

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 9-802CL N is a clear, soft touch TPE designed to bond to the following thermoplastics: PC, ABS, PC/ABS and copolyester.

- Excellent Adhesion to PC, ABS, PC/ABS, Copolyester
- Soft Touch Feel
- Water Clarity

General		
Material Status	• Commercial: Active	
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America
Features	• Good Colorability	• High Clarity
Uses	• Consumer Applications • Flexible Grips	• Overmolding • Soft Touch Applications
Agency Ratings	• FDA	
RoHS Compliance	• RoHS Compliant	
Appearance	• Clear/Transparent	
Forms	• Pellets	
Processing Method	• Injection Molding	

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.920	0.920	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	15 to 26 g/10 min	15 to 26 g/10 min	
200°C/5.0 kg	81 to 92 g/10 min	81 to 92 g/10 min	
Molding Shrinkage - Flow	4.0E-3 to 0.011 in/in	0.40 to 1.1 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	230 psi	1.59 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	310 psi	2.14 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	1130 psi	7.76 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	1200 %	1200 %	ASTM D412
Tear Strength	140 lbf/in	24.5 kN/m	ASTM D624
Compression Set			ASTM D395B
73°F (23°C), 22 hr	20 %	20 %	
158°F (70°C), 22 hr	99 %	99 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	40	40	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	16.0 Pa·s	16.0 Pa·s	

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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	330 to 370 °F	166 to 188 °C
Middle Temperature	360 to 418 °F	182 to 214 °C
Front Temperature	380 to 428 °F	193 to 220 °C
Nozzle Temperature	380 to 428 °F	193 to 220 °C
Mold Temperature	68 to 86 °F	20 to 30 °C
Back Pressure	0.00 to 90.0 psi	0.00 to 0.621 MPa
Screw Speed	25 to 75 rpm	25 to 75 rpm

Injection Notes

Color concentrates with Versaflex™ OM 9-802CL N as the carrier are most suitable for coloring this product. If an OM 9-802CL N based color concentrate is desired, it is important that the chosen color house have underwater pelletization capabilities. Typical loadings for color concentrates are 1% to 5% by weight. A high color match consistency can be obtained by the use of precolored compounds available from GLS. Polypropylene (PP) based color concentrates are not recommended because they lead to poor dispersion, loss of clarity and can significantly affect adhesion of the TPE to the substrate. Concentrates based on other TPEs 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 9-802CL 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.

Drying is not Required

Injection Speed: 1 to 3 in/sec
1st Stage - Boost Pressure: 300 to 600 psi
2nd Stage - Hold Pressure: 30% 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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