

Versaflex™ OM 9-802CL

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 9-802CL 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 400 °F	182 to 204 °C
Front Temperature	380 to 410 °F	193 to 210 °C
Nozzle Temperature	380 to 410 °F	193 to 210 °C
Mold Temperature	70 to 80 °F	21 to 27 °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 as the carrier are most suitable for coloring this product. If an OM 9-802CL 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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