Versaflex™ OM 3060-1

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 3060-1 is a clear, medical compliant overmold designed to adhere to multiple substrates.

- Excellent bond to PC, ABS, PC/ABS, PC/PETG, and PC/PBT
- Rubber Feel
- Soft Touch

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Good Colorability • Good Moldability	• Good Processability • Good Processing Stability	• High Clarity
Uses	• Consumer Applications • Electrical/Electronic Applications • Medical/Healthcare Applications	• Overmolding • Personal Care • Transparent or Translucent Parts	• Transparent Parts
Agency Ratings	• FDA Unspecified Rating • ISO 10993 Part 4	• ISO 10993 Part 5 • UL 94	• USP Class VI [1]
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.900	0.900	ASTM D792
Molding Shrinkage - Flow	8.0E-3 to 0.012 in/in	0.80 to 1.2 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3, 4] (300% Strain, 73°F (23°C))	491 psi	3.39 MPa	ASTM D412
Tensile Strength [3, 4] (Break, 73°F (23°C))	652 psi	4.50 MPa	ASTM D412
Tensile Elongation [3, 4] (Break, 73°F (23°C))	560 %	560 %	ASTM D412
Tear Strength	180 lbf/in	31.5 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	33 %	33 %	ASTM D395B
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 10 sec, 73°F (23°C)	59	59	
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	13.0 Pa·s	13.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	350 to 420 °F	177 to 216 °C
Middle Temperature	360 to 430 °F	182 to 221 °C
Front Temperature	380 to 450 °F	193 to 232 °C
Nozzle Temperature	400 to 470 °F	204 to 243 °C
Mold Temperature	70 to 90 °F	21 to 32 °C
Back Pressure	75.0 to 175 psi	0.517 to 1.21 MPa
Screw Speed	75 to 125 rpm	75 to 125 rpm

Injection Notes

Versaflex™ OM 3060-1 can use a variety of color concentrates. The type of color concentrates most suitable for the application are dependent upon the grade and the specific substrate materials, including color concentrate and filler levels. It is therefore advisable to contact your GLS Technical Representative to discuss your particular application. It should be noted that some color concentrates may affect adhesion to the substrate, resulting in decreased peel strength. Concentrates based on PVC should not be used. The final determination of color concentrate suitable should be determined by customer trials.

Purge thoroughly before and after use of this product with a low flow (0.5-2.5 MFR) polyethylene (PE) or polypropolene (PP).

Versaflex™ OM 3060-1 can use regrind up to 20% with minimal property losses, 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 3060-1 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 8 - 10 minutes or longer.

Drying is not Required

Injection Speed: 1 to 5 in/sec
1st Stage - Boost Pressure: 180 to 580 psi
2nd Stage - Hold Pressure: 50% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

[1] Please contact PolyOne GLS Thermoplastic Elastomers for a complete copy of the GLS Healthcare Policy.
1. The Customer must notify GLS of any FDA Class I and/or European Union Class I medical devices for each specific product and application.
2. The Customer shall not knowingly manufacture, use, sell or otherwise supply, directly or indirectly products or compounds made from GLS products in any of the following without prior written approval by GLS for each specific product or application:
a. Cosmetics
b. Drugs and other Pharmaceuticals
c. Temporary or permanent implantation in the human body, regardless of the intended duration of implantation
d. Class II and Class III Medical Devices as defined in 21 CFR 860.3 ("Medical Devices")
e. Class IIa, IIb and III as defined in Directive 93/42/EEC

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

[3] Die C

[4] 2 hr

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