Versalloy™ XL 9070X-9

Thermoplastic Elastomer

Key Characteristics

Product Description

Versalloy™ XL 9070X-9 is a TPV alloy with exceptional flow properties and surface aesthetics for a variety of applications.

- Exceptional Flow for Long, Thin Flow Paths
- Overmold Adhesion to Polypropylene
- Superior Surface Aesthetics
- Very Good Mar Resistance

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Good Flow	• Good Surface Finish	• Recyclable Material
Uses	• Consumer Applications • Overmolding	• Soft Touch Applications • Thin-walled Parts	
Agency Ratings	• FDA 21 CFR 177.1210 [1]	• UL 94	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.890	0.890	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	30 g/10 min	30 g/10 min	
200°C/5.0 kg	282 g/10 min	282 g/10 min	
Molding Shrinkage - Flow	0.014 to 0.020 in/in	1.4 to 2.0 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3, 4] (100% Strain, 73°F (23°C))	360 psi	2.48 MPa	ASTM D412
Tensile Stress [3, 4] (300% Strain, 73°F (23°C))	512 psi	3.53 MPa	ASTM D412
Tensile Strength [3, 4] (Break, 73°F (23°C))	788 psi	5.43 MPa	ASTM D412
Tensile Elongation [3, 4] (Break, 73°F (23°C))	580 %	580 %	ASTM D412
Tear Strength	180 lbf/in	31.5 kN/m	ASTM D624
Compression Set			ASTM D395B
73°F (23°C), 22 hr	23 %	23 %	
158°F (70°C), 22 hr	42 %	42 %	
212°F (100°C), 22 hr	53 %	53 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	69	69	ASTM D2240
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.5 mm))	HB	HB	UL 94

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Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	6.20 Pa·s	6.20 Pa·s	

Additional Information

Versalloy™ XL 9070X-9 can be recycled as a filler or impact modifier for polyolefins, or can be recycled by grinding and reintroduction to the molding process. Similar to PP or PE recycling process, if separated appropriately, it can be recycled many times.

Municipality waste stream recycle code is "7" which is designated for "Other".

Please contact GLS Thermoplastic Elastomers for a copy of our Recyclability Compliance letter.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Hopper Temperature	60 to 110 °F	16 to 43 °C
Rear Temperature	250 to 370 °F	121 to 188 °C
Middle Temperature	270 to 390 °F	132 to 199 °C
Front Temperature	340 to 410 °F	171 to 210 °C
Nozzle Temperature	340 to 410 °F	171 to 210 °C
Mold Temperature	60 to 80 °F	16 to 27 °C
Back Pressure	100 to 200 psi	0.689 to 1.38 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

Injection Notes

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

Regrind levels up to 20% can be used with Versalloy™ XL 9070X-9 with minimal property losses, provided that the regrind is free of contamination. To mimimize 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 5 in/sec
1st Stage - Boost Pressure: 300 to 700 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] Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.

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

[3] Die C

[4] 2 hr

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