Versaflex™ OM 6240-1

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 6240-1 is specifically designed to bond to a variety of standard and modified nylon materials, including those which are glass-filled, heat stabilized and/or impact modified.

- Exceptional Colorability
- Outstanding Adhesion in Two-Shot Molding Processes
- Soft, Rubbery Grip
- Very Easy to Process

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Adhesion	• Good Colorability	• Good Processability
Uses	• Consumer Applications • Flexible Grips	• Overmolding • Soft Touch Applications	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.09	1.09	ASTM D792
Molding Shrinkage - Flow	0.019 to 0.026 in/in	1.9 to 2.6 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	150 psi	1.03 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	243 psi	1.68 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	285 psi	1.97 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	510 %	510 %	ASTM D412
Tear Strength	90.0 lbf/in	15.8 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	22 %	22 %	ASTM D395B
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 10 sec, 73°F (23°C)	43	43	
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	31.3 Pa·s	31.3 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	360 to 400 °F	182 to 204 °C

Injection	Typical Value (English)	Typical Value (SI)
Middle Temperature	470 to 510 °F	243 to 266 °C
Front Temperature	480 to 520 °F	249 to 271 °C
Nozzle Temperature	490 to 530 °F	254 to 277 °C
Processing (Melt) Temp	480 to 520 °F	249 to 271 °C
Mold Temperature	55.0 to 85.0 °F	12.8 to 29.4 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	80 to 120 rpm	80 to 120 rpm

Injection Notes

Color concentrates with EVA or LDPE carriers are most suitable for coloring Versaflex™ OM 6240-1. Typical 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. Polypropylene (PP) based color concentrates are not recommended because they can significantly affect adhesion of the TPE to the nylon. 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) polyethylene (PE) or polypropylene (PP).

Regrind levels up to 20% can be used with Versaflex™ OM 6240-1 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 6240-1 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: 3 to 5 in/sec
1st Stage - Boost Pressure: 300 to 800 psi
2nd Stage - Hold Pressure: 0% of Boost
Hold Time (Thick Part): 0 to 4 sec
Hold Time (Thin Part): 0 to 3 sec

Notes

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

[2] Die C

[3] 2 hr

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