Versaflex™ OM 6160-9 Black EU

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 6160-9 EU 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.

- Excellent Surface Appearance
- Outstanding Adhesion in Both Two-Shot and Insert 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 Processability	• Good Surface Finish
Appearance	• Black		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.12 g/cm³	1.12 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	5.0 g/10 min	5.0 g/10 min	
200°C/5.0 kg	38 g/10 min	38 g/10 min	
Molding Shrinkage - Flow [2]	3.1 %	3.1 %	ISO 294-4
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress - Flow [3]			ISO 37
100% Strain, 73°F (23°C), 0.0787 in (2.00 mm)	334 psi	2.30 MPa	
Tensile Stress - Flow [3]			ISO 37
300% Strain, 73°F (23°C), 0.0787 in (2.00 mm)	435 psi	3.00 MPa	
Tensile Stress - Flow [3]			ISO 37
Break, 73°F (23°C), 0.0787 in (2.00 mm)	508 psi	3.50 MPa	
Tensile Elongation - Flow [3]			ISO 37
Break, 73°F (23°C), 0.0787 in (2.00 mm)	350 %	350 %	
Tear Strength - Flow [4]			ISO 34-1
73°F (23°C), 0.0787 in (2.00 mm)	143 lbf/in	25.0 kN/m	
Compression Set (73°F (23°C), 22 hr)	30 %	30 %	ISO 815
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness [5] (Shore A, 10 sec)	60	60	ISO 48-4
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.5 mm))	HB	HB	Internal Method
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	19.6 Pa·s	19.6 Pa·s	

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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	356 to 392 °F	180 to 200 °C
Middle Temperature	428 to 473 °F	220 to 245 °C
Front Temperature	446 to 491 °F	230 to 255 °C
Nozzle Temperature	473 to 500 °F	245 to 260 °C
Processing (Melt) Temp	446 to 500 °F	230 to 260 °C
Mold Temperature	60 to 100 °F	16 to 38 °C
Back Pressure	0.00 to 100 psi	0.00 to 0.689 MPa
Screw Speed	75 to 175 rpm	75 to 175 rpm

Injection Notes

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

Regrind levels up to 20% can be used with Versaflex™ OM 6160-9 EU 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 6160-9 EU 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: 2.5 to 5 in/sec
1st Stage - Boost Pressure: 400 to 600 psi
2nd Stage - Hold Pressure: 30% of Boost
Hold Time (Thick Part): 3 to 6 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

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

[2] measured on 100mmx100mmx2 mm plaques

[3] 7.9 in/min (200 mm/min)

[4] 20 in/min (500 mm/min)

[5] ±5 Sh A

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