Versaflex™ OM 6160-9

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ OM 6160-9 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	• Latin America • North America	
Features	• Good Adhesion	• Good Processability	• Good Surface Finish
Agency Ratings	• UL 94		
Appearance	• Black		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.11	1.11	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
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	0.017 to 0.021 in/in	1.7 to 2.1 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	330 psi	2.28 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	428 psi	2.95 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	444 psi	3.06 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	370 %	370 %	ASTM D412
Tear Strength	140 lbf/in	24.5 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	31 %	31 %	ASTM D395B
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	60	60	ASTM D2240
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	19.6 Pa·s	19.6 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	330 to 380 °F	166 to 193 °C

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Injection	Typical Value (English)	Typical Value (SI)
Middle Temperature	480 to 500 °F	249 to 260 °C
Front Temperature	490 to 530 °F	254 to 277 °C
Nozzle Temperature	490 to 530 °F	254 to 277 °C
Processing (Melt) Temp	500 to 530 °F	260 to 277 °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 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 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] Die C

[3] 2 hr

CONTACT INFORMATION

North America
Avon Lake, United States
33587 Walker Road
Avon Lake, OH, United States , 44012
+1 440 930 1000
+1 844 4AVIENT

South America
Sao Paulo, Brazil
Av. Francisco Nakasato, 1700
13295-000 Itupeva
Sao Paulo, Brazil
+55 11 4593 9200

Asia
Shanghai, China
2F, Block C
200 Jinsu Road
Pudong, 201206
Shanghai, China
+86 (0) 21 6028 4888

Europe
Pommerloch, Luxembourg
19 Route de Bastogne
Pommerloch, Luxembourg , L-9638
+352 269 050 35

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