

## PolyOne Versaflex™ OM 6160-1 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

### Material Notes:

Versaflex™ OM 6160-1 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. - Excellent Surface Appearance - Exceptional Colorability - Outstanding Adhesion in Both Two-Shot and Insert Molding Processes - Soft, Rubbery Grip - Very Easy to Process Color concentrates with PS, EVA, or LDPE carriers are most suitable for coloring Versaflex™ OM 6160-1. 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 6160-1 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 6160-1 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: 2.5 to 5 in/sec 1st Stage - Boost Pressure: 400 to 600 psi 2nd Stage - Hold Pressure: 70% of Boost Hold Time (Thick Part): 3 to 6 sec Hold Time (Thin Part): 1 to 3 sec Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Versaflex-OM-6160-1-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-Versaflex-OM-6160-1-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.11 g/cc	1.11 g/cc	ASTM D792
Viscosity	20000 cP	20000 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.017 - 0.021 cm/cm	0.017 - 0.021 in/in	ASTM D955
Melt Flow	5.0 g/10 min	5.0 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
	38 g/10 min	38 g/10 min	ASTM D1238
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	60	60	10 sec; ASTM D2240
Tensile Strength at Break	2.83 MPa	410 psi	Die C2 hr; ASTM D412

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Tensile Stress	2.28 MPa @Strain 100 %, Temperature 23.0 °C	331 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	2.50 MPa @Strain 300 %, Temperature 23.0 °C	363 psi @Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	390 % @Temperature 23.0 °C	390 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	24.5 kN/m	140 pli	ASTM D624
Compression Set	31 % @Temperature 23.0 °C, Time 79200 sec	31 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395B

Thermal Properties	Metric	English	Comments
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	UL 94

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 193 °C	331 - 379 °F	
Middle Barrel Temperature	249 - 260 °C	480 - 500 °F	
Front Barrel Temperature	254 - 277 °C	489 - 531 °F	
Nozzle Temperature	254 - 277 °C	489 - 531 °F	
Melt Temperature	260 - 277 °C	500 - 531 °F	
Mold Temperature	15.6 - 37.8 °C	60.1 - 100 °F	
Back Pressure	0.000 - 0.689 MPa	0.000 - 99.9 psi	
Screw Speed	75 - 125 rpm	75 - 125 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	FDA Unspecified Rating	
	UL 94 .QMFZ2.E76261	
Appearance	Natural Color	
Features	Good Adhesion	

Descriptive Properties	Value	Comments
	Good Processability	
	Good Surface Finish	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Suggested Max Regrind	20%	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China