

PolyOne Versaflex™ OM 1060X-1 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Versaflex™ OM 1060X-1 is an overmolding TPE with very good adhesion to PC or ABS-based plastics. - Good Surface Aesthetics - Rubbery Feel - Soft Touch - Very Good Bond to PC, ABS, PC/ABSColor concentrates with EVA or LDPE carrier are most suitable for coloring Versaflex™ OM 1060X-1. Typical letdown 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. 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 1060X-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 1060X-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 5 - 8 minutes or longer. Drying is not Required Injection Speed: 1 to 3 in/sec 1st Stage - Boost Pressure: 300 to 900 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 3 to 10 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-1060X-1-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.928 g/cc	0.928 g/cc	ASTM D792
Viscosity	12200 cP	12200 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.010 - 0.016 cm/cm	0.010 - 0.016 in/in	ASTM D955
Melt Flow	19 g/10 min	19 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
	29 g/10 min	29 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	4.10 MPa	595 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.14 MPa	310 psi	

Tensile Strength Mechanical Properties	Metric @Strain 100 %, Temperature 23.0 °C	English @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412 Comments
	3.24 MPa	470 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	
Elongation at Break	490 %	490 %	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tear Strength	26.3 kN/m	150 pli	ASTM D624
Compression Set	29 %	29 %	ASTM D395B
	@Temperature 23.0 °C, Time 79200 sec	@Temperature 73.4 °F, Time 22.0 hour	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 188 °C	331 - 370 °F	
Middle Barrel Temperature	182 - 199 °C	360 - 390 °F	
Front Barrel Temperature	193 - 227 °C	379 - 441 °F	
Nozzle Temperature	210 - 238 °C	410 - 460 °F	
Melt Temperature	193 - 221 °C	379 - 430 °F	
Mold Temperature	21.1 - 37.8 °C	70.0 - 100 °F	
Back Pressure	0.000 - 0.862 MPa	0.000 - 125 psi	
Screw Speed	75 - 125 rpm	75 - 125 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	FDA Unspecified Rating	
Appearance	Natural Color	
Features	Good Colorability	
	Good Processability	
	Good Processing Stability	
	Good Surface Finish	
Forms	Pellets	
Generic Material	TPE	

Generic Name Descriptive Properties	Thermoplastic Elastomer (TPE) Value	Comments
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Suggested Max Regrind	20%	
Uses	Consumer Applications	
	Flexible Grips	
	Overmolding	

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