

PolyOne Versaflex™ 9555-1 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Versaflex™ 9555-1 has exceptional flow properties and surface aesthetics for a variety of applications. - Excellent Flow for Long, Thin Flow Paths - Exceptional Colorability - Overmold Adhesion to Polypropylene - Superior Surface Aesthetics Color concentrates with polypropylene (PP) carrier are most suitable for coloring Versaflex™ 9555-1. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. 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™ 9555-1 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™ 9555-1 has good melt stability. Empty the barrel for idle periods of fifteen (15) minutes or longer. Drying is not Required Injection Speed: 1 to 5 in/sec 1st Stage - Boost Pressure: 300 to 700 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 4 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-9555-1-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.988 g/cc	0.988 g/cc	ASTM D792
Viscosity	7200 cP	7200 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
	35000 cP	35000 cP	ASTM D3835
	@Shear Rate 1340 1/s, Temperature 200 °C	@Shear Rate 1340 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.0090 - 0.017 cm/cm	0.0090 - 0.017 in/in	ASTM D955
Melt Flow	4.1 g/10 min	4.1 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
	27 g/10 min	27 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 OO	53	53	10 sec; ASTM D2240
Tensile Strength at Break	3.90 MPa	566 psi	Die C2 hr; ASTM D412

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Tensile Stress	1.45 MPa	210 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
	2.31 MPa	335 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	
Elongation at Break	580 %	580 %	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compression Set	20 %	20 %	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	149 - 188 °C	300 - 370 °F	
Middle Barrel Temperature	160 - 199 °C	320 - 390 °F	
Front Barrel Temperature	171 - 210 °C	340 - 410 °F	
Nozzle Temperature	171 - 210 °C	340 - 410 °F	
Mold Temperature	15.6 - 26.7 °C	60.1 - 80.1 °F	
Back Pressure	0.000 - 0.689 MPa	0.000 - 99.9 psi	
Screw Speed	50 - 100 rpm	50 - 100 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	FDA Unspecified Rating	
Appearance	Natural Color	
Features	Good Colorability	
	Good Flow	
	Good Surface Finish	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Injection Molding	

Descriptive Properties	Value & Middle East	Comments
	Asia Pacific	
	Europe	
	North America	
	South America	
Suggested Max Regrind	20%	

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