PolyOne Dynaflex™ G7736-1 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynaflex™ G7736-1 is a general purpose compound designed to provide easy processing and a good surface finish. - Good Aesthetics - Good Ozone/UV Stability - High Flow for Thin-Wall Parts - Overmold Adhesion To Poylpropylene - Rubbery Feel - Soft TouchDynaflex™ G7736-1 can be recycled as a filler or impact modifier for polyolefins, or can be recycled by grinding and reintroduction to the molding process. Similar to PP or PE recycling process, if separated appropriately, it can be recycled many times. Municipality waste stream recycle code is 7 which is designated for Other. Please contact GLS Thermoplastic Elastomers for a copy of our Recyclability Compliance letter.Color concentrates with Polypropylene (PP), Ethylene Vinyl Acetate (EVA), or Low Density Polyethylene (LDPE) carrier are most suitable for coloring Dynaflex™ G7736-1. 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. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by the use of precolored compounds available from GLS. 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 Dynaflex™ G7736-1 with minimal property losses, 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. Dynaflex™ G7736-1 has excellent 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: 1 to 5 in/sec 1st Stage - Boost Pressure: 100 to 800 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 4 to 10 sec Hold Time (Thin Part): 1 to 3 secInformation provided by PolyOne

Order this product through the following link:
http://www.lookpolymers.com/polymer_PolyOne-Dynaflex-G7736-1-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.06 g/cc	1.06 g/cc	ASTM D792
Viscosity	5300 cP @Shear Rate 11200 1/s, Temperature 200 °C	5300 cP @Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
Linear Mold Shrinkage, Flow	0.022 - 0.026 cm/cm	0.022 - 0.026 in/in	ASTM D955
Melt Flow	20 g/10 min @Load 2.16 kg, Temperature 190 °C	20 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	36	36	10 sec; ASTM D2240
Tensile Strength at Break	3.01 MPa	437 psi	Die C2 hr; ASTM D412

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	1.03 MPa @Strain 100 %, Temperature 23.0 °C	149 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	1.70 MPa @Strain 300 %, Temperature 23.0 °C	247 psi @Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	660 % @Temperature 23.0 °C	660 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	14.0 kN/m	79.9 pli	ASTM D624
Compression Set	11 % @Temperature 23.0 °C, Time 79200 sec	11 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395B

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 182 °C	331 - 360 °F	
Middle Barrel Temperature	182 - 204 °C	360 - 399 °F	
Front Barrel Temperature	188 - 210 °C	370 - 410 °F	
Nozzle Temperature	193 - 221 °C	379 - 430 °F	
Mold Temperature	15.6 - 26.7 °C	60.1 - 80.1 °F	
Back Pressure	0.000 - 0.862 MPa	0.000 - 125 psi	
Screw Speed	25 - 75 rpm	25 - 75 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	FDA 21 CFR 177.1210	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
Appearance	Natural Color	
Features	Good Colorability	
	Good UV Resistance	
	High Flow	
	Ozone Resistant	
	Recyclable Material	

Descriptive Properties	Value	Comments
Forms	Pellets	
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	
RoHS Compliance	RoHS Compliant	
Suggested Max Regrind	20%	
Uses	Consumer Applications	
	General Purpose	
	Overmolding	
	Soft Touch Applications	
	Sporting Goods	
	Thin-walled Parts	

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