

PolyOne Dynaflex™ G6713-0001 Thermoplastic Elastomer (TPE)

Category: Polymer, Thermoplastic, Elastomer, TPE

Material Notes:

Dynaflex[™] G6713-0001 is an easy processing TPE designed for use in injection molding and extrusion applications where an extremely soft feel is desired. - Excellent Colorability - Good Ozone and UV Stability - Overmold Adhesion To Polypropylene - Tactile Feel - Ultra Soft TouchColor concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynaflex[™] G6713-0001. 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 using 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[™] G6713-0001 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. The Dynaflex[™] G6713-0001 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 3 in/sec 1st Stage - Boost Pressure: 150 to 700 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 3 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-G6713-0001-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.878 g/cc	0.878 g/cc	ASTM D792
	5200 cP	5200 cP	
Viscosity	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
Linear Mold Shrinkage, Flow	0.028 - 0.032 cm/cm	0.028 - 0.032 in/in	ASTM D955
	1.4 g/10 min	1.4 g/10 min	
Melt Flow	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	ASTM D1238
	65 g/10 min	65 g/10 min	
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	14	14	10 sec; ASTM D2240
	1.54 MPa	223 psi	
Tensile Strength at Break			Die C2 hr; ASTM D412



Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments	
	0.393 MPa	57.0 psi		
Tensile Stress	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412	
	0.648 MPa	94.0 psi		
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412	
Florensking of Breek	650 %	650 %	Die C2 hr; ASTM D412	
Elongation at Break	@Temperature 23.0 °C	@Temperature 73.4 °F		
Tear Strength	7.01 kN/m	40.0 pli	ASTM D624	
Compression Set	9.0 %	9.0 %		
	@Temperature 23.0 °C, Time 79200 sec	@Temperature 73.4 °F, Time 22.0 hour	ASTM D395B	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	149 - 177 °C	300 - 351 °F	
Middle Barrel Temperature	177 - 188 °C	351 - 370 °F	
Front Barrel Temperature	188 - 216 °C	370 - 421 °F	
Nozzle Temperature	188 - 216 °C	370 - 421 °F	
Mold Temperature	15.6 - 26.7 °C	60.1 - 80.1 °F	
Back Pressure	0.000 - 0.758 MPa	0.000 - 110 psi	
Screw Speed	50 - 150 rpm	50 - 150 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	EU 2002/72/EC	Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter.
	FDA 21 CFR 177.1210	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
Appearance	Translucent	
Automotive Specifications	FMVSS 302	
Features	Good Colorability	
	Good UV Resistance	
	Ozone Resistant	



Descriptive Properties	Value	Comments
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Extrusion	
	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	
	Gaskets	
	Overmolding	
	Personal Care	
	Seals	
	Soft Touch Applications	
	Toys	
	Transparent or Translucent Parts	

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