

PolyOne Dynaflex™ G2745 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynaflex™ G2745 is designed for injection molding, however, can also be process by extrusion and injection molding. - Easy Processing - Excellent Colorability - Excellent Ozone Resistance and Heat AgingColor concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or polyethylene (PE) carrier are most suitable for coloring Dynaflex™ G2745. 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™ G2745 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. Dynaflex™ G2745 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: 0.5 to 3 in/sec 1st Stage - Boost Pressure: 400 to 900 psiInformation provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Dynaflex-G2745-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.888 g/cc	0.888 g/cc	ASTM D792
Viscosity	9900 cP	9900 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	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	42	42	10 sec; ASTM D2240
Tensile Strength at Break	5.10 MPa	740 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	2.76 MPa	400 psi	Die C2 hr; ASTM D412
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	
Elongation at Break	600 %	600 %	Die C2 hr; ASTM D412

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Tear Strength	27.3 kN/m @Temperature 23.0 °C, Time 7200 sec	156 pli @Temperature 73.4 °F, Time 2.00 hour	ASTM D624

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	196 - 204 °C	385 - 399 °F	
Front Barrel Temperature	204 - 216 °C	399 - 421 °F	
Nozzle Temperature	216 - 232 °C	421 - 450 °F	
Mold Temperature	23.9 - 65.6 °C	75.0 - 150 °F	
Back Pressure	0.000 - 0.552 MPa	0.000 - 80.1 psi	

Descriptive Properties	Value	Comments
Agency Ratings	BfR XXI, section 2.1.3.1.1	Please contact GLS Thermoplastic Elastomers for a copy of the BfR compliance letter.
	FDA 21 CFR 177.1210	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
Appearance	Clear/Transparent	
Features	Good Colorability	
	Good Heat Aging Resistance	
	Good Processability	
	Ozone Resistant	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Extrusion	
	Injection Molding	
Regional Availability	Asia Pacific	
RoHS Compliance	RoHS Compliant	

Descriptive ^{Max} Properties	Value	Comments
Uses	Consumer Applications	
	Overmolding	
	Personal Care	
	Soft Touch Applications	

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