

PolyOne Dynaflex™ G7690-9 (Black) Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynaflex™ G7690-9 (Black) is an easy processing, general purpose TPE designed for a wide variety of applications, including those where FDA compliance is required. - Overmold Adhesion to Polypropylene - Rubbery Feel - Soft Touch

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™ G7690-9 (Black) 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™ G7690-9 (Black) 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: 350 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-Dynaflex-G7690-9-Black-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 g/cc	ASTM D792
Viscosity	14300 cP	14300 cP	ASTM D3835
	@Shear Rate 11200 1/s, Temperature 200 °C	@Shear Rate 11200 1/s, Temperature 392 °F	
	74000 cP	74000 cP	ASTM D3835
	@Shear Rate 1340 1/s, Temperature 200 °C	@Shear Rate 1340 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	0.0060 - 0.014 cm/cm	0.0060 - 0.014 in/in	ASTM D955
Melt Flow	14 g/10 min	14 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	89	89	10 sec; ASTM D2240
Tensile Strength at Break	11.0 MPa	1600 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	4.55 MPa	660 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
	6.21 MPa	901 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	600 % @Temperature 23.0 °C	600 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	46.4 kN/m	265 pli	ASTM D624
Compression Set	38 % @Temperature 23.0 °C, Time 79200 sec	38 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395B

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 177 °C	331 - 351 °F	
Middle Barrel Temperature	177 - 193 °C	351 - 379 °F	
Front Barrel Temperature	188 - 227 °C	370 - 441 °F	
Nozzle Temperature	193 - 227 °C	379 - 441 °F	
Mold Temperature	15.6 - 37.8 °C	60.1 - 100 °F	
Back Pressure	0.000 - 0.827 MPa	0.000 - 120 psi	
Screw Speed	40 - 100 rpm	40 - 100 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	Black	
Features	General Purpose	
	Good Flow	
	Good Processability	
	Good Processing Stability	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	

Descriptive Method Properties	Value Injection Molding	Comments
Regional Availability	Asia Pacific	
RoHS Compliance	RoHS Compliant	
Suggested Max Regrind	20%	
Uses	Consumer Applications	
	Flexible Grips	
	Gaskets	
	General Purpose	
	Overmolding	
	Seals	
	Sporting Goods	

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