

PolyOne Dynaflex™ G7970-9001-02 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynaflex™ G7970-9001-02 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 Dynaflex™ G7970-9001-02 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. Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP). Re grind levels up to 20% can be used with Dynaflex™ G7970-9001-02 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 the regrind effectiveness should be determined by the customer. The Dynaflex™ G7970-9001-02 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: 175 to 575 psi 2nd Stage - Hold Pressure: 70% 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-Dynaflex-G7970-9001-02-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 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	
Linear Mold Shrinkage, Flow	0.0060 - 0.012 cm/cm	0.0060 - 0.012 in/in	ASTM D955
Melt Flow	54 g/10 min	54 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	70	70	10 sec; ASTM D2240
Tensile Strength at Break	6.58 MPa	954 psi	Die C2 hr; ASTM D412
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	2.62 MPa	380 psi	Die C2 hr; ASTM D412
	@Strain 100 %, Temperature 23.0 °C	@Strain 100 %, Temperature 73.4 °F	
	3.10 MPa	450 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	720 % @Temperature 23.0 °C	720 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	28.0 kN/m	160 pli	ASTM D624
Compression Set	20 % @Temperature 23.0 °C, Time 79200 sec	20 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395B

Thermal Properties	Metric	English	Comments
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	UL 94

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	166 - 177 °C	331 - 351 °F	
Middle Barrel Temperature	177 - 188 °C	351 - 370 °F	
Front Barrel Temperature	188 - 227 °C	370 - 441 °F	
Nozzle Temperature	188 - 227 °C	370 - 441 °F	
Mold Temperature	15.6 - 37.8 °C	60.1 - 100 °F	
Back Pressure	0.345 - 1.03 MPa	50.0 - 149 psi	
Screw Speed	40 - 100 rpm	40 - 100 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	FDA 21 CFR 177.1210 UL 94 .QMFZ2.E76261	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
Appearance	Black	
Automotive Specifications	FMVSS 302	
Features	General Purpose Good Flow Good Processability Good Processing Stability	

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	
	Flexible Grips	
	Gaskets	
	General Purpose	
	Household Goods	
	Overmolding	
	Seals	
	Soft Touch Applications	
	Sporting Goods	

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