

## PolyOne Dynaflex™ G7980-1001-00 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

### Material Notes:

Dynaflex™ 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™ G7980-1001-00 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 (PE) carriers are most suitable for coloring Dynaflex™ G7980-1001-00. 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™ G7980-1001-00 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™ G7980-1001-00 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-G7980-1001-00-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-Dynaflex-G7980-1001-00-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 g/cc	ASTM D792
Viscosity	10900 cP	10900 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 - 0.011 cm/cm	0.0060 - 0.011 in/in	ASTM D955
Melt Flow	3.0 g/10 min	3.0 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
	26 g/10 min	26 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 Mechanical Properties	80 Metric	80 English	10 sec; ASTM D2240 Comments
Tensile Strength at Break	6.76 MPa @Temperature 23.0 °C	980 psi @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tensile Stress	3.65 MPa @Strain 100 %, Temperature 23.0 °C	529 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	4.07 MPa @Strain 300 %, Temperature 23.0 °C	590 psi @Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	620 % @Temperature 23.0 °C	620 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	33.3 kN/m	190 pli	ASTM D624
Compression Set	26 % @Temperature 23.0 °C, Time 79200 sec	26 % @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 - 188 °C	331 - 370 °F	
Middle Barrel Temperature	177 - 188 °C	351 - 370 °F	
Front Barrel Temperature	188 - 216 °C	370 - 421 °F	
Nozzle Temperature	188 - 227 °C	370 - 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.

UL 94 .QMFZ2.E76261

Appearance
------------

<b>Descriptive Properties</b>	<b>Natural Color Value</b>	<b>Comments</b>
<b>Automotive Specifications</b>	FMVSS 302	
<b>Features</b>	General Purpose	
	Good Colorability	
	Good Flow	
	Good Processability	
	Good Processing Stability	
	Recyclable Material	
<b>Forms</b>	Pellets	
<b>Generic Material</b>	TPE	
<b>Generic Name</b>	Thermoplastic Elastomer (TPE)	
<b>Manufacturer / Supplier</b>	GLS Thermoplastic Elastomers	
<b>Processing Method</b>	Injection Molding	
<b>Regional Availability</b>	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
<b>RoHS Compliance</b>	RoHS Compliant	
<b>Suggested Max Regrind</b>	20%	
<b>Uses</b>	Consumer Applications	
	Flexible Grips	
	Gaskets	
	General Purpose	
	Household Goods	
	Overmolding	
	Seals	

Descriptive Properties	Value	Comments
------------------------	-------	----------

Sporting Goods

---

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China