

Dynaflex® G7970-9001-02

Thermoplastic Elastomer GLS Thermoplastic Elastomers



Prospector

Product Description

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

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Agency Ratings	• FDA Unspecified Rating	• NSF 51	
Appearance	• Black		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	54	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60 to 1.2	%	ASTM D955

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ^{2, 3}			ASTM D412
100% Strain, 23°C	2.83	MPa	
300% Strain, 23°C	3.65	MPa	
Tensile Strength ^{2, 3} (Break, 23°C)	7.24	MPa	ASTM D412
Tensile Elongation ^{2, 3} (Break, 23°C)	660	%	ASTM D412
Tear Strength	28.0	kN/m	ASTM D624
Compression Set (23°C, 22.0 hr)	22	%	ASTM D395B

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	70		ASTM D2240

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.50 mm)	HB		UL 94

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 11200 sec ⁻¹)	9.90	Pa·s	ASTM D3835

Injection	Nominal Value	Unit
Suggested Max Regrind	20	%
Rear Temperature	166 to 177	°C
Middle Temperature	177 to 188	°C
Front Temperature	188 to 227	°C
Nozzle Temperature	188 to 227	°C
Mold Temperature	15.6 to 37.8	°C
Back Pressure	0.345 to 1.03	MPa
Screw Speed	40 to 100	rpm

Injection Notes

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® 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

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Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C

³ 2 hr