

Dynaflex™ G7990-9001-02

Thermoplastic Elastomer

PolyOne Corporation

Message:

Dynaflex™ G7990-9001-02 is an easy processing, general purpose TPE designed for a wide variety of applications.

Overmold Adhesion to Polypropylene

Rubbery Feel

General Information			
Features	Recyclable materials Workability, good Good processing stability Good liquidity General		
Uses	overmolding Washer Household goods Seals Soft handle Sporting goods General Consumer goods application field		
RoHS Compliance	RoHS compliance		
Appearance	Black		
Forms	Particle		
Processing Method	Extrusion Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.17	g/cm ³	ASTM D792
Molding Shrinkage - Flow	0.80 - 1.4	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	93		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain, 23°C	5.62	MPa	ASTM D412
300% strain, 23°C	6.62	MPa	ASTM D412
Tensile Strength (Break, 23°C)	10.7	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	610	%	ASTM D412

Tear Strength ¹ (23°C)	60.4	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	50	%	ASTM D395B
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 11200 sec ⁻¹)	15.7	Pa·s	ASTM D3835

Additional Information

Dynaflex™ G7990-9001-02 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.

Injection	Nominal Value	Unit
Suggested Max Regrind	20	%
Rear Temperature	166 - 188	°C
Middle Temperature	177 - 188	°C
Front Temperature	188 - 227	°C
Nozzle Temperature	188 - 227	°C
Mold Temperature	15.6 - 37.8	°C
Back Pressure	0.00 - 0.827	MPa
Screw Speed	40 - 100	rpm

Injection instructions

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™ G7990-9001-02 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 regrind effectiveness should be determined by the customer. Dynaflex™ G7990-9001-02 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 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.

NOTE

1. 2 hr

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