# Dynaflex™ G7680-9 (Black)

### Thermoplastic Elastomer

## PolyOne Corporation

#### Message:

Dynaflex™ G7680-9 (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

General Information			
Features	Workability, good		
	Good processing stability		
	Good liquidity		
	General		
Uses	overmolding		
	Washer		
	Seals		
	Soft touch application		
	Soft handle		
	Sporting goods		
	General		
	Consumer goods applicat	ion field	
Agency Ratings	FDA 21 CFR 177.1210 2		
RoHS Compliance	RoHS compliance		
Appearance	Black		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method

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Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	33	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60 - 1.4	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	81		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>1</sup>			ASTM D412
100% strain, 23°C <sup>2</sup>	3.90	MPa	ASTM D412

300% strain, 23°C <sup>3</sup>	4.55	MPa	ASTM D412
Tensile Strength (Yield, 23°C)	7.93	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	660	%	ASTM D412
Tear Strength	34.1	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	23	%	ASTM D395B
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity			ASTM D3835
200°C, 1340 sec^-1	47.3	Pa∙s	ASTM D3835
200°C, 11200 sec^-1	10.9	Pa∙s	ASTM D3835
Injection	Nominal Value	Unit	
Suggested Max Regrind	20	%	
Rear Temperature	149 - 188	°C	
Middle Temperature	177 - 188	°C	
Front Temperature	188 - 216	°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™ G7680-9 (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™ G7680-9 (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 RequiredInjection Speed: 1 to 3 in/sec1st Stage - Boost Pressure: 350 to 900 psi2nd Stage - Hold Pressure: 30% of BoostHold Time (Thick Part): 3 to 10 secHold Time (Thin Part): 1 to 3 sec

NOTE	
1.	2 hr
2.	Mouth die c
3.	C mould

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