

Dynaflex™ G7970-1 NSFG

Thermoplastic Elastomer

PolyOne Corporation

Message:

Dynaflex™ G7970-1 NSFG is a NSF 51 (food equipment) approved material suitable for a wide variety of applications.

- NSF 51 approved
- FDA (see Notes)
- Overmold Adhesion to Polypropylene
- Soft Touch, Rubbery Feel

General Information			
Features	Recyclable materials		
	Workability, good		
	Good processing stability		
	Good liquidity		
	Good coloring		
Uses	overmolding		
	Kitchen utensils		
	Washer		
	Non-specific food applications		
	Household goods		
	Seals		
	Soft touch application		
	Soft handle		
	Food service sector		
	Consumer goods application field		
Agency Ratings	FDA 21 CFR 177.2600 2		
	NSF 51		
RoHS Compliance	RoHS compliance		
Appearance	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	1.0	g/10 min	ASTM D1238
200°C/5.0 kg	36	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60 - 1.2	%	ASTM D955

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	70		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
100% strain, 23°C ²	2.62	MPa	ASTM D412
300% strain, 23°C ³	3.10	MPa	ASTM D412
Tensile Strength (Break, 23°C)	6.58	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	720	%	ASTM D412
Tear Strength	28.0	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	20	%	ASTM D395B
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 11200 sec ⁻¹)	9.90	Pa·s	ASTM D3835

Additional Information

Dynaflex™ G7970-1 NSFG 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 - 177	°C
Middle Temperature	177 - 193	°C
Front Temperature	188 - 227	°C
Nozzle Temperature	193 - 227	°C
Mold Temperature	15.6 - 37.8	°C
Back Pressure	0.00 - 0.827	MPa
Screw Speed	40 - 100	rpm

Injection instructions

以聚丙烯 (PP), 乙烯醋酸乙烯共聚物 (EVA) 或低密度聚乙烯 (PE) 为基础的色母料最适合 Dynaflex™ G7970-1 NSFG 着色. 使用熔体流动速率较高(范围为 25 - 40 克/10 分钟)的色母料, 则能达到较好的颜色分散效果. 典型的色母料用量为 1% 至 5%(重量). 可以使用液体颜料, 但以矿物油为基础的载体对最终硬度值会有显著的影响. 不应采用以 PVC 为基础的色母料. 若使用 GLS 可供的预着色复合材料, 则可达到较好的配色一致性. 色母料是否适用, 应由用户通过试验来最终确定. 在使用此产品之前或之后, 均须用熔体流动速率较低 (0.5 - 2.5 MFR) 的聚乙烯 (PE) 或聚丙烯 (PP) 彻底进行置换. Dynaflex™ G7970-1 NSFG 可利用高达 20% 的回收料同时其性能所受影响却极小, 但该回收料必须是未受到污染的. 为了最大限度地减小模塑期间其性能所受的影响, 熔体温度应维持得尽可能低. 回收料的有效性应由用户最终确定. Dynaflex™ G7970-1 NSFG 具有极好的熔体稳定性. 最长停留时间可能会根据机筒尺寸有所变化. 通常, 如果机器闲置 8 - 10 分钟或以上, 则应将机筒排空. 不需要干燥注射速度: 1 - 3 英寸/秒 第一阶段 - 提升压力: 350 - 900 psi 第二阶段 - 保持压力: 30% 的升压保持时间(厚部件): 3 - 10 秒 保持时间(薄部件): 1 - 3 秒

NOTE

1. 2 hours
2. Mouth die c
3. C mould

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