

# Dynaflex™ G7670-1 (Natural)

Thermoplastic Elastomer

PolyOne Corporation

Message:

Dynaflex™G7670-1 (Natural) is an easy-to-process universal TPE designed for a wide range of applications, including applications that must comply with FDA standards.  
It can be bonded to polypropylene by overlapping molding  
Similar to rubber  
Soft to the touch

| General Information                      |                                  |                   |             |
|------------------------------------------|----------------------------------|-------------------|-------------|
| Features                                 | Workability, good                |                   |             |
|                                          | Good processing stability        |                   |             |
|                                          | Good liquidity                   |                   |             |
|                                          | Good coloring                    |                   |             |
|                                          | General                          |                   |             |
| Uses                                     | overmolding                      |                   |             |
|                                          | Washer                           |                   |             |
|                                          | Seals                            |                   |             |
|                                          | Soft touch application           |                   |             |
|                                          | Soft handle                      |                   |             |
|                                          | Sporting goods                   |                   |             |
|                                          | General                          |                   |             |
|                                          | Consumer goods application field |                   |             |
| Agency Ratings                           | FDA 21 CFR 177.1210 2            |                   |             |
| RoHS Compliance                          | RoHS compliance                  |                   |             |
| Appearance                               | Natural color                    |                   |             |
| Forms                                    | Particle                         |                   |             |
| Processing Method                        | Extrusion                        |                   |             |
|                                          | Injection molding                |                   |             |
| Physical                                 | Nominal Value                    | Unit              | Test Method |
| Specific Gravity                         | 1.18                             | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 21                               | 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)     | 71                               |                   | ASTM D2240  |
| Elastomers                               | Nominal Value                    | Unit              | Test Method |
| Tensile Stress <sup>1</sup>              |                                  |                   | ASTM D412   |

|                                                      |               |      |             |
|------------------------------------------------------|---------------|------|-------------|
| 100% strain, 23°C <sup>2</sup>                       | 2.79          | MPa  | ASTM D412   |
| 300% strain, 23°C <sup>3</sup>                       | 3.62          | MPa  | ASTM D412   |
| Tensile Strength (Break, 23°C)                       | 7.03          | MPa  | ASTM D412   |
| Tensile Elongation (Break, 23°C)                     | 670           | %    | ASTM D412   |
| Tear Strength                                        | 29.8          | kN/m | ASTM D624   |
| Compression Set (23°C, 22 hr)                        | 19            | %    | ASTM D395B  |
| Fill Analysis                                        | Nominal Value | Unit | Test Method |
| Apparent Viscosity (200°C, 11200 sec <sup>-1</sup> ) | 9.60          | Pa·s | ASTM D3835  |
| 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™ G7670-1(天然)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™ G7670-1(天然)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™ G7670-1(天然)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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