Dynalloy™ GP 7820-80N

Thermoplastic Elastomer

Key Characteristics

Product Description		
Dynalloy™ GP 7820-80N is a general purpose TPE compound designed for various consumer markets, including like kitchenware,toys,personal and infant care related applications. And the compound is formulated based on hydrogenated styrenic block copolymers(SEBS).		
General		
Material Status	• Commercial: Active	
Regional Availability	• Asia Pacific	
Agency Ratings	• EU 10/2011	• FDA 21 CFR 177.1210 [1]
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Forms	• Pellets	
Processing Method	• Injection Molding	

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.990	0.990	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [3, 4] (Yield, 73°F (23°C))	1340 psi	9.25 MPa	ASTM D412
Tensile Elongation [3, 4] (Break, 73°F (23°C))	780 %	780 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	80	80	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	9.20 Pa·s	9.20 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 360 °F	160 to 182 °C
Middle Temperature	340 to 380 °F	171 to 193 °C
Front Temperature	360 to 420 °F	182 to 216 °C
Nozzle Temperature	360 to 430 °F	182 to 221 °C
Processing (Melt) Temp	360 to 430 °F	182 to 221 °C
Mold Temperature	70 to 90 °F	21 to 32 °C

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Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynalloy™ 7820. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials.

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 Dynalloy™ GP 7820 with minimal property losses, provided that the regrind is free of contamination. To minimize losses during molding, the melt temperature should be as low as possible. The final determination of regrind effectiveness should be determined by the customer.

The Dynalloy™ GP 7820 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

Notes

[1] Contact GLS Thermoplastic Elastomers for a copy of the FDA Compliance letter

[2] Typical values are not to be construed as specifications.

[3] Die C

[4] 2 hr

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