Dynalloy™ FC 3510-80

Thermoplastic Elastomer

Key Characteristics

Product Description			
Dynalloy™ FC 3510-80 is designed for food contact applications that comply with GB 4806.6-2016. Dynalloy™ FC 3510-80 also has excellent bonding on ABS, PC, PC/ABS and Copolyester.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Agency Ratings	• Chinese Standard GB 9685-2016 [1]	• EU 10/2011 [2]	• FDA [3]
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [4]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.08	1.08	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [5, 6] (300% Strain, 73°F (23°C))	885 psi	6.10 MPa	ASTM D412
Tensile Strength [5, 6] (Yield, 73°F (23°C))	2320 psi	16.0 MPa	ASTM D412
Tensile Elongation [5, 6] (Break, 73°F (23°C))	990 %	990 %	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	20.0 Pa·s	20.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	122 to 158 °F	50 to 70 °C
Suggested Max Regrind	20 %	20 %
Rear Temperature	302 to 351 °F	150 to 177 °C
Middle Temperature	356 to 437 °F	180 to 225 °C
Front Temperature	374 to 464 °F	190 to 240 °C
Nozzle Temperature	374 to 464 °F	190 to 240 °C
Processing (Melt) Temp	374 to 464 °F	190 to 240 °C
Mold Temperature	60 to 100 °F	16 to 38 °C

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Injection Notes

Color concentrates with ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynalloy™ FC 3510-80. 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).

Regrind levels up to 20% can be used with Dynalloy™ FC 3510-80 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™ FC 3510-80 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 required.

Notes

[1] Contact AVIENT for a copy of the China GB Compliance letter.

[2] Contact AVIENT for a copy of the EU Compliance letter.

[3] Contact AVIENT for a copy of the FDA Compliance letter.

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

[5] Die C

[6] 2 hr

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