# Dynalloy™ FC 3510-50

## Thermoplastic Elastomer

### Key Characteristics

| Product Description | | | |
|---|---|---|---|
| Dynalloy™ FC 3510-50 is designed for food contact applications that comply with GB 4806.6-2016. Dynalloy™ FC 3510-50 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 | 1.03 | 1.03 | ASTM D792 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Stress [5, 6] (300% Strain, 73°F (23°C)) | 624 psi | 4.30 MPa | ASTM D412 |
| Tensile Strength [5, 6] (Yield, 73°F (23°C)) | 1090 psi | 7.50 MPa | ASTM D412 |
| Tensile Elongation [5, 6] (Break, 73°F (23°C)) | 720 % | 720 % | ASTM D412 |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 10 sec) | 50 | 50 | ASTM D2240 |
| **Fill Analysis** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Apparent Viscosity | | | ASTM D3835 |
| 392°F (200°C), 11200 sec^-1 | 11.8 Pa·s | 11.8 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 3510-50. 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 3510-50 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 3510-50 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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