# INEOS HDPE B50-35H-176

High Density Polyethylene

**INEOS Olefins & Polymers USA**

## Technical Data

| Product Description |
|---|
| B50-35H-176 is a high density polyethylene copolymer developed for blow molding. It is recommended for use in applications which require a combination of high top load strength and good environmental stress crack resistance (ESCR). This material contains a fully FDA sanctioned antistat and meets the Food and Drug Administration requirements of 21CFR 177.1520. |

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Literature [1] | • Processing - Injection Molding (English)<br>• Technical Datasheet (English) | | |
| Search for UL Yellow Card | • INEOS Olefins & Polymers USA | | |
| Availability | • North America | | |
| Additive | • Antistatic | | |
| Features | • Antistatic<br>• Copolymer | • Food Contact Acceptable<br>• Good Strength | • High Density<br>• High ESCR (Stress Crack Resist.) |
| Uses | • Blow Molding Applications | | |
| Agency Ratings | • FDA 21 CFR 177.1520 | | |
| RoHS Compliance | • Contact Manufacturer | | |
| Forms | • Pellets | | |
| Processing Method | • Blow Molding | | |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.950 | g/cm³ | ASTM D4883 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 0.35 | g/10 min | ASTM D1238 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength [3] (Yield) | 25.5 | MPa | ASTM D638 |
| Tensile Elongation [3] (Break) | > 700 | % | ASTM D638 |
| Apparent Bending Modulus | 600 | MPa | ASTM D747 |
| Flexural Modulus - Tangent | 1100 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | 190 | J/m | ASTM D256 |
| Tensile Impact Strength | 302 | kJ/m² | ASTM D1822 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness (Shore D) | 65 | | ASTM D2240 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 70.0 | °C | |
| Brittleness Temperature | < -75.0 | °C | ASTM D746 |
| Vicat Softening Temperature | 130 | °C | ASTM D1525 |

### Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

[3] 51 mm/min