# INEOS HDPE T50-4400

High Density Polyethylene

**INEOS Olefins & Polymers USA**

## Technical Data

| Product Description | |
|---|---|
| | T50-4400 is a high-flow, high density polyethylene copolymer intended for injection molding of thin wall containers. This material will allow for cycle time reduction while still imparting reasonable impact strength. This resin 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 | | |
| Features | • Copolymer<br>• Fast Molding Cycle | • Food Contact Acceptable<br>• High Density | • High Flow<br>• Medium Impact Resistance |
| Uses | • Thin-walled Containers | | |
| Agency Ratings | • FDA 21 CFR 177.1520 | | |
| RoHS Compliance | • Contact Manufacturer | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.951 | g/cm³ | ASTM D4883 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 44 | g/10 min | ASTM D1238 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength [3] (Yield) | 25.5 | MPa | ASTM D638 |
| Flexural Modulus - Tangent | 1210 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | 20 | J/m | ASTM D256 |
| **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 | 74.0 | °C | |
| Brittleness Temperature | < -75.0 | °C | ASTM D746 |
| Vicat Softening Temperature | 120 | °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