



DOW™ 2010

Ultra-Pure Polyethylene

General Information

Product Description DOW™ 2010 Ultra-Pure Polyethylene resin is characterized by low melt index and intermediate crystallinity. This product, produced via a unique polymerization process, has outstanding flexibility and environmental stress crack resistance.

Status

Typical Characteristics

Features Contains a mold release agent.

Applications Injection molded parts used in medical, pharmaceutical, and personal care packaging.

Typical Properties

| Physical | Nominal Values | Test Method(s) | |
|-----------------------------------|------------------------|----------------|----------|
| *Density () | 0.92 g/cm ³ | ASTM D792 | ISO 1183 |
| *Melt Flow Index (190°C/2.16kg) | 1.9 g/10 min | ASTM D1238 | ISO 1133 |

| Thermal | Nominal Values | Test Method(s) | |
|---------------------------|---------------------|----------------|----------|
| *Melting Point (DSC) | 109 °C (228.2 °F) | ASTM D3418 | ISO 3146 |
| Freezing Point (DSC) | 96 °C (204.8 °F) | ASTM D3418 | ISO 3146 |
| Vicat Softening Point () | 96 °C (204.8 °F) | ASTM D1525 | ISO 306 |

Processing Information

*Maximum Processing Temperature 310 °C (590 °F)

General Processing Information DOW™ 2010 Ultra-Pure Polyethylene is normally processed at melt temperatures ranging from 180-235°C (356-455°F). Actual processing temperatures will usually be determined by optimizing product appearance and production rates on individual production lines.

Unusual materials of construction are not required in the processing of this resin due to the non-corrosive nature of DOW™ 2010 Ultra-Pure Polyethylene. For long equipment life, a wear-resistant extruder barrel is recommended. Nickel or chrome plating of the screw, adapter, and die parts is also recommended.

General Processing Recommendations:

Dry blending of DOW™ 2010 Ultra-Pure Polyethylene with other polyethylene resins additive masterbatches is best done using resins with melt indexes similar to DOW™ 2010 Ultra-Pure Polyethylene and a screw design that enhances mixing. No special purging prior to shut down is necessary when processing only DOW™ 2010 Ultra-Pure Polyethylene resin, but purging with a low melt index LDPE resin is recommended if pigment, additives, or other resins have been added during production runs. Shut down of the melt handling system on DOW™ 2010 Ultra-Pure Polyethylene resin or some other low melt index LDPE resin.

