Dow Packaging & Specialty Plastics

Product Data Sheet

# DOW™ 2020T

## Ultra-Pure Polyethylene

### General Information

**Product Description**

DOW™ 2020T 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.

DOW™ 2020T Ultra-Pure Polyethylene is mainly intended for use in extruded tubing.

### Status

### Typical Characteristics

**Applications**

Extruded tubes, in particular used in medical, pharmaceutical, and personal care packaging.

### Typical Properties

| Physical | Nominal Values | Test Method(s) | |
|---|---|---|---|
| *Density ( ) | 0.92 g/cm³ | ASTM D792 | ISO 1183 |
| *Melt Flow Index ( 190°C/2.16kg ) | 1.1 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 ) | 93 °C ( 199.4 °F ) | ASTM D3418 | ISO 3146 |
| Vicat Softening Point ( ) | 97 °C ( 206.6 °F ) | ASTM D1525 | ISO 306 |

### Processing Information

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

**General Processing Information**

DOW™ 2020T 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™ 2020T 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™ 2020T Ultra-Pure Polyethylene with other polyethylene resins additive masterbatches is best done using resins with melt indexes similar to DOW™ 2020T Ultra-Pure Polyethylene and a screw design that enhances mixing. No special purging prior to shut down is necessary when processing only DOW™ 2020T 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™ 2020T Ultra-Pure Polyethylene resin or some other low melt index LDPE resin.

| | |
|---|---|
| **FDA Status Information** | **DOW™ 2020T Ultra-Pure Polyethylene resin complies with Food and Drug Administration Regulation 21 CFR 177.1520(c)2.2 - - Olefin polymers. This Regulation describes polymers that may be used as articles or components of articles in contact with food, including articles used for packing or holding food during cooking, subject to the limitations and requirements therein.**<br><br>**The information and certifications provided herein are based on data we believe to be reliable, to the best of our knowledge. The information and certifications apply only to the specific material designated herein as sold by Dow and do not apply to use in any process or in combination with any other material. They are provided at the request of and without charge to our customers. Accordingly, Dow cannot guarantee or warrant such certifications or information and assumes no liability for their use.** |
| **Regulatory Information** | **DOW™ 2020T Ultra-Pure Polyethylene resin is specified in pharmaceutical packaging and is listed in FDA Drug Master File 1528 for packaging materials applications.**<br><br>**For information on regulatory compliance outside of the U.S.A., consult your local Dow representative.** |
| **Safety & Handling** | **For information on appropriate Handling & Storage of this polymeric resin, please refer to the material Safety Data Sheet.**<br><br>**A Product Safety Bulletin, material Safety Data Sheet, and/or more detailed information on extrusion processing and/or compounding of this polymeric resin for specific applications are available from your Dow representative.** |

**Product Stewardship**

**Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.**

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**Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.**

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**https://www.dow.com/en-us/support/product-safety.html**

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**http://www.dow.com/products_services**

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**P&SP Disclaimer**

**Additional Information**

**To contact Dow via Toll-Free or Local Toll phone numbers in specific countries, please see the following webpage:**
**https://www.dow.com/en-us/support/contact-representative.html**

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