



## Dow Packaging & Specialty Plastics

### Product Data Sheet

#### DOW™ 2020T

#### Ultra-Pure Polyethylene

##### General Information

|                     |                                                                                                                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description | <p>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.</p> <p>DOW™ 2020T Ultra-Pure Polyethylene is mainly intended for use in extruded tubing.</p> |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

##### 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/cm <sup>3</sup> | 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

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

|                                |                                                                                                                                                                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Processing Information | <p>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.</p> |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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.

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.

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.

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.

## Customer Notice

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.

## Medical Applications Policy

Any and all medical application use of Dow materials, whether a device, a component, or any type of primary or secondary packaging of a medically related object or substance, needs to be reviewed and approved by Dow before any Dow material can be tested in such application.

Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use. **DOW MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY DOW PRODUCT FOR USE IN MEDICAL APPLICATIONS.**

For further information contact your Dow sales or technical representative to request a Medical Application Review Request Form.

Additional details of Dow's Medical Applications Policy are available at:

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

## Tobacco and Marijuana Policy

Dow does not support or intend for its products to be used, directly or indirectly, in the production of tobacco, the manufacture of tobacco products, the manufacture and use of electronic cigarettes (including vaping devices), the production of marijuana, or the manufacture of marijuana products intended for human consumption, where the Dow product (or its residues) may be present in the finished product or be alleged to facilitate the delivery of nicotine, other tobacco components, marijuana, or marijuana components.

## Harmful Applications Policy

Dow does not intend for its products to be used in applications specifically intended to harm humans.

## Disclaimer

**NOTICE:** No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

**NOTICE:** If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; (3) there is greater potential for Dow to change specifications and/or discontinue production; and (4) although Dow may from time to time provide samples of such products, Dow is not obligated to supply or otherwise commercialize such products for any use or application whatsoever.

For additional information, not covered by the content of this document, contact us via our web site

[http://www.dow.com/products\\_services](http://www.dow.com/products_services)

**Revision Date: 26-February-2021**

**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>

<http://www.dow.com>

**Updated February 2021**

**© 2019 The Dow Chemical Company**

Version: 50.0

Last modified at 8/6/2019 9:50 AM