DOW™ 20 HEALTH+™

Ultra-Pure Polyethylene

General Information

Product Description

DOW™ 20 HEALTH+™ Ultra-Pure Polyethylene resin is characterized by low melt index and intermediate crystallinity. A unique polymerization process allows for the production of a very high purity product, vital for pharmaceutical applications. The product also has outstanding flexibility and environmental stress crack resistance without the use of additives.

Status

Typical Characteristics

Applications

Extrusion Blow / Fill / Seal vials, also known as "BFS vials".
Injection molded parts, in particular used in medical and pharmaceutical 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)	1.9 g/10 min	ASTM D1238	ISO 1133

Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	108 °C (226.4 °F)	ASTM D3418	ISO 3146
Freezing Point (DSC)	92 °C (197.6 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ( )	94 °C (201.2 °F)	ASTM D1525	ISO 306

Processing Information

***Maximum Processing Temperature**

310 °C (590 °F)

General Processing Information

DOW™ 20 HEALTH+™ 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™ 20 HEALTH+™ 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™ 20 HEALTH+™ Ultra-Pure Polyethylene with other polyethylene resins additive masterbatches is best done using resins with melt indexes similar to DOW™ 20 HEALTH+™ Ultra-Pure Polyethylene and a screw design that enhances mixing.
No special purging prior to shut down is necessary when processing only DOW™ 20 HEALTH+™ 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™ 20 HEALTH+™ Ultra-Pure Polyethylene resin or some other low melt index LDPE resin.

FDA Status Information	**DOW™ 20 HEALTH+™ 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™ 20 HEALTH+™ Ultra-Pure Polyethylene 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.**