DuPont™ 20 Series DPE-2020T

DuPont™ 20 Series resins Product Data Sheet

Description

Product Description
DuPont™ 20 Series DPE-2020T, specialty low density 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.

Restrictions

Material Status
• Commercial: Active

Typical Characteristics

Features
DPE-2020T is mainly intended for use in extruded tubing, and passes a DuPont test method to screen for potential tube defects.

Characteristics / Benefits
DPE-2020T specialty polyethylene resins conform to the requirements of ASTM D1248-69, Type I, Class A, Category 3.

Applications
Injection blow molded bottles and tubes, and extruded tubing in particular used in medical, pharmaceutical, and personal care packaging

Typical Properties

Physical

<table>
<thead>
<tr>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (g/cm³)</td>
<td>0.92</td>
</tr>
<tr>
<td>Melt Flow Rate (190°C/2.16kg)</td>
<td>1.1 g/10 min</td>
</tr>
</tbody>
</table>

Thermal

<table>
<thead>
<tr>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point (DSC)</td>
<td>109°C (228°F)</td>
</tr>
<tr>
<td>Freezing Point (DSC)</td>
<td>93°C (199°F)</td>
</tr>
<tr>
<td>Vicat Softening Point</td>
<td>97°C (207°F)</td>
</tr>
</tbody>
</table>

Processing Information

General

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

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

FDA Status Information
DuPont™ DPE 2020T Specialty 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 DuPont 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, DuPont cannot guarantee or warrant such certifications or information and assumes no liability for their use.

Regulatory Information
DPE-2020T series specialty polyethylene resins are specified in pharmaceutical packaging and are listed in FDA Drug Master File 1528 for packaging materials applications.

For information on regulatory compliance outside of the U.S., consult your local DuPont 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 DuPont Packaging and Industrial Polymers representative.

Read and Understand the Material Safety Data Sheet (MSDS) before using this product

Regional Centres
DuPont operates in more than 70 countries. For help finding a local representative, please contact one of the following regional customer contact centers:

<table>
<thead>
<tr>
<th>Americas</th>
<th>Asia Pacific</th>
<th>Europe / Middle East / Africa</th>
</tr>
</thead>
</table>
| DuPont Company
Chestnut Run Plaza – Bldg. 730
974 Centre Road
Wilmington, Delaware
19805 U.S.A.
Toll-Free (USA): 1-800-628-6208
Telephone: 1-302-774-1000
Fax: 1-302-355-4013 | DuPont China Holding Co., Ltd.
Shanghai Branch
399 Keyuan Road, Bldg. 11
Zhangjiang Hi-Tech Park
Pudong New District, Shanghai
P.R. China (Postcode: 201203)
Telephone +86 21 3862 2888
Fax +86-21-3862-2889 | DuPont de Nemours Int’l. S.A.
2, Chemin du Pavillon Box 50
CH-1218 Le Grand Saconnex
Geneva, Switzerland
Telephone +41 22 717 51 11
Fax +41 22 717 55 00 |

DuPont do Brasil, S.A.
The data listed here fall within the normal range of properties, but they should not be used to establish specification limits nor used alone as the basis of design. The DuPont Company assumes no obligations or liability for any advice furnished or for any results obtained with respect to this information. All such advice is given and accepted at the buyer's risk. The disclosure of information herein is not a licence to operate under, or a recommendation to infringe, any patent of DuPont or others. Since DuPont cannot anticipate all variations in actual end-use conditions, DuPont makes no warranties and assumes no liability in connection with any use of this information.

CAUTION: Do not use DuPont materials in medical applications involving implantations in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of DuPont POLICY Regarding Medical Applications H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

Copyright © 2009 DuPont. The DuPont Oval Logo, DuPont™, The miracles of science™, and trademarks designated with “®” are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.