DuPont Packaging & Industrial Polymers

DuPont™ Fusabond® E589

Fusabond® Adhesive resins  Product Data Sheet

Description

Product Description
DuPont™ Fusabond® E589 is an anhydride modified polyethylene.

Restrictions

Material Status
• Commercial: Active

Typical Characteristics

Uses
• Adhesives
  • Pipe Coating
  • Tie-Layer

Features
Premium adhesive for Pipe Coating tie-layer onto high surface temperatures. (90°C)

Typical Properties

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>(compression molded plaque 0.924 g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Melt Flow Rate (190°C/2.16kg)</td>
<td>2 g/10 min</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength @ Yield @ 23C (50mm/min)</td>
<td>11.6 MPa</td>
<td>ASTM D638 Type IV</td>
</tr>
<tr>
<td>Tensile Strength @ Ultimate @ 23C (50mm/min)</td>
<td>22 MPa</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tensile Elongation @ Break @ 23C (50mm/min)</td>
<td>&gt; 700%</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Oxidation Induction Time @ 220C (in Oxgen atmosphere)</td>
<td>16 minutes</td>
<td>ASTM D3895</td>
</tr>
<tr>
<td>Flexural Modulus (0.05 in/min)</td>
<td>330 MPa</td>
<td>ASTM D790-92</td>
</tr>
<tr>
<td>Heat Distortion Temperature (455 KPa)</td>
<td>61 Celsius</td>
<td>ASTM D648</td>
</tr>
<tr>
<td>Hardness (Shore &quot;D&quot; Scale)</td>
<td>58</td>
<td>ASTM 2240</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermal</th>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point (DSC)</td>
<td>119°C (246°F)</td>
<td>ASTM D3418 ISO 3146</td>
</tr>
<tr>
<td>Freezing Point (DSC)</td>
<td>105°C (221°F)</td>
<td>ASTM D3418 ISO 3146</td>
</tr>
<tr>
<td>Vicat Softening Point</td>
<td>99°C (210°F)</td>
<td>ASTM D1525 ISO 306</td>
</tr>
</tbody>
</table>
Additional Adhesive Evaluation
1376 pound force (lbf) (Lap Shear @ 23°C) ASTM D1002

Processing Information
General
* Maximum Processing Temperature 250°C (482°F)

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
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**Americas**
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

**Asia Pacific**
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

**Europe / Middle East / Africa**
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.
Alameda Itapecuru, 506
06454-080 Barueri, SP Brasil
Telephone: +55 11 4166 8000
Fax: +55 11 4166 8736

http://fusabond.dupont.com

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