# Entira™ HPE resins Product Data Sheet

## Description

**Product Description**

Entira™ HPE 200 resin is a rubbery ethylene copolymer based material showing high chemical resistance, temperature resistance (when crosslinked) and flexibility at low temperatures. Entira™ HPE elastomers are typically used as the base polymer for a thermoset elastomer compound.

## Restrictions

**Material Status**

Developmental: Active

## Typical Characteristics

**Composition**

Proprietary Compound

**Characteristics / Benefits**

Compounds made from Entira™ HPE normally use a peroxide curing system and can develop good properties only after a cure step. Alternatively they can be crosslinked through exposure to electron beams.

**Applications**

Wire & Cable: example uses; offshore, nuclear power plants, windmills, ships & marine, buildings and other demanding environments.

Also for use in: foams, footwear, polymer modification, adhesives, automotive under-the-hood and textile coating

## 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>1.03</td>
</tr>
<tr>
<td>Melt Flow Rate (190°C/2.16kg)</td>
<td>8.1 g/10 min</td>
</tr>
<tr>
<td>Mooney Viscosity ML (1+4) 100°C (units MU)</td>
<td>16</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>60 °C (140 °F)</td>
</tr>
<tr>
<td>Glass Transition Temperature (°C)</td>
<td>-30 °C (-22 °F)</td>
</tr>
</tbody>
</table>

## Processing Information

**Maximum Processing Temperature**

230 °C (446 °F)

**General Processing Information**

Handling Precautions:

Entira™ HPE elastomers contain small amounts of residual monomers and adequate ventilation should be provided during mixing and processing to prevent worker exposure to these monomers. Additional information is available in the Safety Data Sheet (SDS).

Compound Formulation Guidelines:

The principles of compounding Entira™ HPE are similar to conventional technology in that curatives, fillers, stabilizers, plasticizers and process aids are used. Attention must be given to avoiding ingredients that might give detrimental effects.

Entira™ HPE compounds are normally cured using a peroxide (i.e., Vul-Cup®, Peradox®, Di-Cup®, etcetera) in combination with a co-agent. Selection of the system depends on desired compound properties and processing conditions.

Compounds including Entira™ HPE can be mixed on an open roll mill, in an internal mixer or in a continuous mixer. The resultant compounds incorporating Entira™ HPE can then be extruded, molded or calendared. Shrinkage during molding is expected and varies with compound formulation and process conditions.
Compounds of Entira™ HPE should be formulated to meet a chosen set of specific end-use performance requirements. The compounds must have a balance of good processability and good final cured properties to satisfy the downstream processors and end-users.

**FDA Status Information**
For information on regulatory compliance within the U.S., consult your local DuPont representative.

**Regulatory Information**
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 Performance Materials representative.

**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:

**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

DuPont do Brasil, S.A.
Alameda Itapecuru, 506
06454-080 Barueri, SP Brasil
Telephone: +55 11 4166 8000
Fax: +55 11 4166 8736

**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

http://www.dupont.com

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 license 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 applications and expressly acknowledges the contemplated use. For our 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.