

## **Petromont 1000 High Density Polyethylene Resin**

Category: Polymer, Thermoplastic, Polyethylene (PE), HDPE

## **Material Notes:**

Petromont HDPE 1000 is a high density polyethylene copolymer resin produced using the Unipol® Process. This multi-purpose resin can be used on intermittent and continuous blow moulding machines to produce containers up to 10 litres for use in various packaging applications. Petromont HDPE 1000 offers both excellent processing characteristics and finish product performance. Petromont HDPE 1000, because of its high density, exhibits excellent rigidity and top load performance while still offering outstanding drop impact properties, as well as maintaining excellent environmental stress crack resistance performance. The higher density also makes this product a good candidate for some hot filled applications. The glossy appearance, which is characteristic of Pétromont's resins, results in parts exhibiting good surface quality. The highly stabilized additive package makes Petromont HDPE 1000 less susceptible to degradation during processing. In regards to swell characteristics, Petromont HDPE 1000 is similar to most competitive resins having similar viscosity properties.

Order this product through the following link:

http://www.lookpolymers.com/polymer\_Petromont-1000-High-Density-Polyethylene-Resin.php

| Physical Properties | Metric        | English                   | Comments                       |
|---------------------|---------------|---------------------------|--------------------------------|
| Density             | 0.955 g/cc    | 0.0345 lb/in <sup>3</sup> | ASTM D1505                     |
| ESCR 100% Igepal®   | 33 hour       | 33 hour                   | F <sub>50</sub> ; ASTM D1693-B |
| Melt Flow           | 0.33 g/10 min | 0.33 g/10 min             | I <sub>2</sub> ; ASTM D1238    |
|                     | 29 g/10 min   | 29 g/10 min               | I <sub>21</sub> ; ASTM D238    |

| Mechanical Properties   | Metric    | English       | Comments   |
|-------------------------|-----------|---------------|------------|
| Hardness, Shore D       | 67        | 67            | ASTM D2240 |
| Tensile Strength, Yield | 26.9 MPa  | 3900 psi      | ASTM D638  |
| Elongation at Break     | >= 800 %  | >= 800 %      | ASTM D638  |
| Flexural Modulus        | 1.325 GPa | 192.2 ksi     | ASTM D790  |
| Izod Impact, Notched    | 1.60 J/cm | 3.00 ft-lb/in | ASTM D256  |

| Thermal Properties          | Metric               | English              | Comments  |
|-----------------------------|----------------------|----------------------|-----------|
| CTE, linear                 | 130 μm/m-°C          | 72.2 µin/in-°F       | ASTM D696 |
|                             | @Temperature 20.0 °C | @Temperature 68.0 °F |           |
| Melting Point               | 134 °C               | 273 °F               | Petromont |
| Crystallization Temperature | 111 °C               | 232 °F               | Petromont |
|                             |                      |                      |           |



| Thermal Properties      | Metric      | English    | ASTM 0648<br>Comments |
|-------------------------|-------------|------------|-----------------------|
| Vicat Softening Point   | 128 °C      | 262 °F     | ASTM D1525            |
| Brittleness Temperature | <= -76.0 °C | <= -105 °F | ASTM D746             |

| Descriptive Properties | Value        | Comments |
|------------------------|--------------|----------|
| Process                | Blow Molding |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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