VISCOWAX® 111 – high quality non-oxidised, non-polar polyethylene wax produced according to a high pressure polymerisation process

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Reference Value</th>
<th>Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity @ 140°C *</td>
<td>50-80</td>
<td>mm²/s</td>
<td>DGF M-III 8</td>
</tr>
<tr>
<td>Drop Point *</td>
<td>108-114</td>
<td>°C</td>
<td>DGF M-III 3</td>
</tr>
<tr>
<td>Solidification Point</td>
<td>98-104</td>
<td>°C</td>
<td>DGF M-III 4a</td>
</tr>
<tr>
<td>Needle Penetration</td>
<td>≤ 2</td>
<td>10⁻¹ mm</td>
<td>DGF M-III 9b</td>
</tr>
<tr>
<td>Hardness</td>
<td>50-200</td>
<td>bar</td>
<td>DGF M-III 9c</td>
</tr>
<tr>
<td>Density</td>
<td>0.93-0.95</td>
<td>g/cm³</td>
<td>DIN EN ISO 1183, C</td>
</tr>
<tr>
<td>Molecular weight (Mn)</td>
<td>1800</td>
<td>g/mol</td>
<td>GPC</td>
</tr>
<tr>
<td>Type of delivery</td>
<td>Fine grain</td>
<td>-</td>
<td>Visual</td>
</tr>
<tr>
<td>Appearance</td>
<td>White</td>
<td>-</td>
<td>visual</td>
</tr>
</tbody>
</table>

* general supply specification  
DGF: Test methods of the Deutsche Gesellschaft für Fettwissenschaft e.V. Münster i.W.

**Main Scope of Application**

- **Hot melt adhesives**
  - Viscosity adjustment
  - Adjustment of open time
  - Increased blocking point

- **Printing Inks**
  - Abrasion prevention

- **Lacquers and varnishes**
  - Matting agent, abrasion prevention

- **Paraffin compounding, candle industry**
  - Increase on solidification and drop points

- **Polishes**
  - In solvent-containing and low solvent applications

- **Masterbatches**
  - Wetting and dispersing agent

CAS Number: 9002 - 88 - 4
Status under Food Legislation

EU: Listed in Annex I of Regulation (EU) 10/2011 (Ref. No. 80000)

USA: FDA CFR 21 §§ 177.1520 (c) 2.3, 175.300, 175.105

For further information please contact us under the below mentioned address.

Form of Delivery, Packaging and Storage

VISCOWAX® 111 is shipped palletised (preferably 750 kg each) and shrink-wrapped as dust-free powder in PE sacks of 25 kg each. Shipment in big bags of different sizes is possible upon request.

The product shall be stored in its original packaging at room temperature in a dry place. It must not be stored together with amines. Avoid direct sun radiation and water contact.

Safety and Environment

VISCOWAX® 111 has not been classified as hazardous materials in accordance with the Regulation (EC) No. 1272/2008 (CLP/GHS) and therefore it does not require marking. The product does not contain heavy metals.

It is insoluble in water and has no harmful effect on fish and bacteria. Disposal of the product is to be carried out in accordance with the local regulations.

Please refer to the Safety Material Data Sheet for further safety-relevant information.

Please do not hesitate to contact us for further details.

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The general points listed correspond to our current knowledge and have been elaborated to the best of our belief and under consideration of professional care. Herewith, we do not guarantee definite properties nor suitability for a particular application. It is the customer’s duty to particularly check suitability of the product for the use intended.