VISCOWAX® 331V – high quality ethylene vinyl-acetate copolymer wax

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Reference Value</th>
<th>Units</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl acetate content *</td>
<td>10-13</td>
<td>%</td>
<td>FTIR</td>
</tr>
<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>95-105</td>
<td>°C</td>
<td>DGF M-III 3</td>
</tr>
<tr>
<td>Solidification Point</td>
<td>85-95</td>
<td>°C</td>
<td>DGF M-III 4a</td>
</tr>
<tr>
<td>Needle Penetration</td>
<td>≤ 12</td>
<td>10⁻¹ mm</td>
<td>DGF M-III 9b</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>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.

VISCOWAX® 331V can be used in many different applications. Please contact us to get more information about the special properties of our product and the potential use/advantage in your application.

**Main scope of application and effect:**

- **Masterbatches**
  - Carrier material and dispersing aid in pigment and additive concentrations

- **Hotmelts**
  - Adjustment of viscosity, softening and drop point
  - Improved tack
  - Enhanced low temperature flexibility

- **Lacquers**
  - Antisettling agent in metallic lacquers for pigment orientation

- **Paraffincompounds**
  - Improved elasticity

- **Candles**
  - Optimized burning behaviour if used as wick wax
Status under Food Legislation

EU: Regulation (EU) 10/2011 (FCM-No. 969)

USA: FDA CFR 21 §§ 177.1350, 175.105, 175.300, 176.170, 176.180, 177.1210

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

Safety and Environment

VISCOWAX® 331V 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.

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 our Safety Data Sheet for further safety relevant information.

Form of Delivery, Packaging and Storage

VISCOWAX® 331V is shipped as dust-free powder either in multilayer paper bags or PE bags of 25 kg net. The product is palletised (preferably 750 kg net) on CP2-pallets (1200mm x 800mm) which are shrink-wrapped.

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.

Please do not hesitate to contact us for further details.

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Leuna, March 2015

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.