TECHNICAL INFORMATION

Chemical description: Wax dispersion / Wachsdispersion

Application/properties: Aqueous lacquer and paints.
                    Aqueous Flexo- and gravure printing inks.
                    To improve scratch- and rub resistance and antiblocking.

Processing information: 1-3 % of this wax dispersion to be added to the lacquer or printing ink while stirring.

Solid: Polyolefin wax/PTFE

Emulsifier-system: non-ionic

Solvent: Water

Technical data:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active content</td>
<td>44,0 %</td>
<td>46,0 %</td>
<td>Sartorius MA 100 infrared drier</td>
</tr>
<tr>
<td>Drop point</td>
<td>108 °C</td>
<td>118 °C</td>
<td>DIN 51801 (solid wax)</td>
</tr>
<tr>
<td>pH-Value</td>
<td>4,5</td>
<td>6,5</td>
<td>DIN ISO 976</td>
</tr>
<tr>
<td>Particle size d50</td>
<td>5,0 µm</td>
<td>7,0 µm</td>
<td>Picture-Particle-Analyzing-System</td>
</tr>
<tr>
<td>Particle size d98 &lt;=</td>
<td>18,0 µm</td>
<td></td>
<td>Picture-Particle-Analyzing-System</td>
</tr>
<tr>
<td>Density</td>
<td>0,96 g/ccm</td>
<td>0,98 g/ccm</td>
<td>Pyknometer DIN EN ISO 2811-1</td>
</tr>
<tr>
<td>Viscosity (typical value)</td>
<td>70 mPa.s</td>
<td></td>
<td>Rheolab MC1 DIN 53019 1.291s-1</td>
</tr>
</tbody>
</table>

The product described in this Technical Data Sheet is not yet a standard product. The indicated limits are preliminary data and can be specified only after 5 produced batches.

Storage:

In original closed containers lasting at least 6 months at temperatures between 5-35°C. Stir well before use!
Protect from frost! After long storage, particularly after usage of some of the product, evaporation of water is possible and visible signs of particles may be present. We therefore recommend filtration of the product before use.

Our technical suggestions are based on data from many experiments and cannot represent a warranty of any kind as to their performance in other formulations. Customers must always verify our product's performance in their own systems. This technical data sheet replaces all previous issues.

Revision: 06/2015 EN

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