HDK® H15

Pyrogenic Silica

Synthetic, hydrophobic, amorphous silica, produced via flame hydrolysis.

Properties

White colloidal powder of high purity.
Technical data

Specification

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss on drying⁽¹⁾</td>
<td>-</td>
<td>&lt; 0.6 %</td>
<td>DIN EN ISO 787-2</td>
</tr>
<tr>
<td>Sieve residue⁽²⁾</td>
<td>-</td>
<td>&lt; 0.05 %</td>
<td>DIN EN ISO 787-18</td>
</tr>
<tr>
<td>Tamped density</td>
<td>-</td>
<td>approx. 40 g/l</td>
<td>DIN EN ISO 787-11</td>
</tr>
<tr>
<td>BET surface⁽³⁾</td>
<td>-</td>
<td>130 - 170 m²/g</td>
<td>DIN ISO 9277 DIN 66132</td>
</tr>
<tr>
<td>Carbon content</td>
<td>-</td>
<td>0.8 - 1.2 %</td>
<td>DIN ISO 10694</td>
</tr>
<tr>
<td>Surface modification</td>
<td>-</td>
<td>-</td>
<td>Dimethylsiloxy</td>
</tr>
</tbody>
</table>

¹ex works (2 h at 105 °C)
²acc. to Mocker > 40 µm
³of the hydrophilic silica

General Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>BET surface⁽¹⁾</td>
<td>-</td>
<td>approx. 120 m²/g</td>
<td>DIN ISO 9277 DIN 66132</td>
</tr>
<tr>
<td>Density⁽²⁾</td>
<td>20 °C</td>
<td>approx. 2.2 g/cm³</td>
<td>DIN 51757</td>
</tr>
<tr>
<td>INCI name</td>
<td>-</td>
<td>Silica Dimethyl Silylate</td>
<td>-</td>
</tr>
<tr>
<td>Residual silanol content</td>
<td>-</td>
<td>50.0 %</td>
<td></td>
</tr>
<tr>
<td>(relative silanol in relation to the hydrophilic silica)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SiO₂ content⁽⁴⁾</td>
<td>2.0 h</td>
<td>&gt; 99.8 %</td>
<td></td>
</tr>
</tbody>
</table>

¹of the hydrophobic silica
²SiO₂
³relative silanol in relation to the hydrophilic silica, which shows approx. 2 SiOH/nm²
⁴based on the substance heated at 1000 °C for 2 h

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product’s fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties’ rights.

Applications

- Toners
- Offset Printing
- Printing Inks
- Industrial Coatings
• Personal Care
• Adhesives

Application details

HDK® H15 is applied as a thickening and thixotropic agent in coatings, printing inks, adhesives, cosmetics and others. HDK® H15 is used as a reinforcing filler in elastomers, mainly silicone-elastomers. HDK® H15 acts as a free flow additive in the production of technical powders.

HDK® H15 is not suitable for pharmaceuticals, food and feed.
A good dispersion of HDK® H15 is a must to assure optimum performance.
More detailed information about the application and processing of HDK® H15 is available in our HDK brochures and on the WACKER web site.

Packaging and storage

Packaging

HDK® H15 is offered in the following packaging:
• pallet with paper bags: 10 kg bags
• Big bags: 170 kg (big bag on pallet)
• Silottruck: depending on size of truck

Storage

The 'Best use before end' date of each batch is shown on the shipping label and the certificate of analysis. HDK® H15 should be stored in the original packaging in dry storage areas. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via the WACKER web site (http://www.wacker.com/hdk). During transportation and processing HDK® H15 may cause electrostatic charges. Like other amorphous silicas HDK® H15 does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

QR Code HDK® H15
For technical, quality or product safety questions, please contact:
Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
info@wacker.com, www.wacker.com

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