

HDK[®] N20



Pyrogenic Silica

Synthetic, hydrophilic, amorphous silica, produced via flame hydrolysis. Standard product for industrial applications.

INCI Silica

Properties

White colloidal powder of high purity.

Technical data

Specification

| Property | Condition | Value | Method |
|-------------------------------|-----------|-----------------------------|------------------------|
| BET surface | - | 175 - 225 m ² /g | DIN ISO 9277 DIN 66132 |
| Tamped density | - | approx. 40 g/l | DIN EN ISO 787-11 |
| pH ⁽¹⁾ | - | 3.8 - 4.3 | DIN EN ISO 787-9 |
| Sieve residue ⁽²⁾ | - | < 0.03 % | DIN EN ISO 787-18 |
| Loss on drying ⁽³⁾ | - | < 1.5 % | DIN EN ISO 787-2 |

¹in 4 % dispersion (1 : 1 mixture of water-methanol)

²acc. to Mocker > 40 µm

³ex works (2 h at 105 °C)

General Characteristics

| Property | Condition | Value | Method |
|---|-----------|-------------------------------|--------------------|
| Density ⁽¹⁾ | 20 °C | approx. 2.2 g/cm ³ | DIN 51757 |
| INCI name | - | Silica | - |
| Loss of weight ⁽²⁾ | - | < 2 % | DIN EN ISO 3262-20 |
| Refraction index | - | 1.46 | - |
| SiO ₂ content ⁽³⁾ | - | > 99.8 % | DIN EN ISO 3262-20 |
| Silanol group density | - | 2 SiOH/nm ² | - |

¹SiO₂

²at 1000 °C / 2h (based on the substance dried at 105 °C for 2 h)

³based 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

- Additives for Rheology Control
- Anti-Corrosive Coatings
- Architectural Coatings
- Automotive Coatings
- Can Coatings
- Coil Coatings
- Composites
- Flexographic Printing
- Gravure Printing
- Industrial Coatings
- Industrial Wood Coatings
- Inkjet Paper
- Make-up
- Marine & Protective Coatings
- Offset Printing
- Oral Care
- Personal Care
- Powder Coatings
- Rheology Control
- Rheology Control & Free-Flow Agent
- Rheology Control with HDK[®]
- Rheology Modifiers

- Roof Coatings
- Screen Printing
- Skin Care
- Structural Bonding of Wind Turbines
- Sunscreen
- Wind Energy
- Wood-to-Wood Bonding

Application details

HDK® N20 is applied as a thickening and thixotropic agent in many organic systems, e.g. in unsaturated polyesters, coatings, printing inks, adhesives, cosmetics and others.

HDK® N20 is used as a reinforcing filler in elastomers, mainly silicone-elastomers.

HDK® N20 acts as a free flow additive in the production of technical powders.

HDK® N20 is not suitable for pharmaceuticals, food and feed.

A good dispersion of HDK® N20 is a must to assure optimum performance.

More detailed information about the application and processing of HDK® N20 is available in our HDK-brochures and on the WACKER web site.

Packaging and storage

Packaging

HDK® N20 is offered in following packaging:

- pallet with paper bags: 10 kg bags
- Big bags: 150 kg (big bags on pallets)
- Silotruck: depending on size of truck, approx. 3.5 to 5 tons

Storage

The 'Best use before end' date of each batch is shown on the shipping label and the certificate of analysis.

HDK® N20 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. Due to the high surface area HDK® adsorbs volatiles and should be protected from humidity and volatiles. If single bags are taken away from an original pallet, the remaining bags of this pallet must again be protected against humidity and volatiles.

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. During transportation and processing HDK® N20 may cause electrostatic charges. Like other amorphous silicas HDK® N20 does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

QR Code HDK® N20



For technical, quality or product safety questions, please contact:

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