

# HDK® N20

Pyrogenic Silica - Fumed Silica

## Characteristics

Synthetic, hydrophilic amorphous silica, produced via flame hydrolysis

## Special characteristics

White colloidal powder of high purity

## Application

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. It 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, in food and feed and in pharmaceutical products.

## Processing

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 (<http://www.wacker.com/hdk>)

## Storage

HDK® N20 has a shelf life of at least 24 months when stored in unbroken original packaging in dry storage areas. The 'Best use before end' date of each batch appears on the product label.

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.

## Product data

Typical General Properties	Test procedure	Unit	Value
SiO <sub>2</sub> -content <sup>1)</sup>	DIN EN ISO 3262-19	%	>99.8
loss on ignition <sup>2)</sup> at 1000 °C / 2h	DIN EN ISO 3262-19	%	<2
density of SiO <sub>2</sub>		g/l	2200
refractive index			1.46
silanol group density		SiOH/nm <sup>2</sup>	2
electric resistivity (density 40 g/l)		[Ω cm]	>10 <sup>13</sup>

Physical-chemical properties	Test procedure	Unit	Value
BET-surface area	DIN ISO 9277/ DIN 66132	m <sup>2</sup> /g	170 - 230
pH, in 4 % aqueous dispersion	DIN EN ISO 787-9		3.8 – 4.3
tamped density	DIN EN ISO 787-11	g/l	ca. 40
loss on drying <sup>3)</sup> (2 h at 105°C)	DIN EN ISO 787-2	%	< 1.5
sieve residue, acc. to Mocker > 40 µm	DIN EN ISO 787-18	%	< 0.04

1) based on the substance heated at 1000 °C for 2 h

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

3) ex works

## Packaging

HDK<sup>®</sup> N20 is offered in following packaging:

- \* paper bags on pallet:  
10 kg or 20 lbs bags, (160 kg or 320 lbs per pallet)
- \* Big bags:  
200 lbs and 150 kg, (big bags on pallets)
- \* Silotruck:  
depending on size of truck, approx. 3.5 to 5 tons

Details about packaging and handling:

<http://www.wacker.com/hdk>.

## Safety information

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<sup>®</sup> N20 may cause electrostatic charges.

Like other amorphous silicas HDK<sup>®</sup> N20 does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

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The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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Version 3.3 from 15-04-05 replaces  
Version 3.2 from 31-08-04

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

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