

HDK® N20

PYROGENIC SILICA

Product description

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

Special features

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. 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.

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

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.

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

Details about packaging and handling:
(<http://www.wacker.com/hdk>).

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® N20 may cause electrostatic charges.

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

| Product data | | |
|--|---------------------------|-------------------------------|
| Typical general characteristics | Inspection Method | Value |
| SiO ₂ content (based on the substance heated at 1000 °C for 2 h) | DIN EN ISO 3262-19 | > 99,8 % |
| Loss of weight at 1000 °C / 2h (based on the substance dried at 105 °C for 2 h) | DIN EN ISO 3262-19 | < 2 % |
| Density at 20 °C (SiO ₂) | DIN 51757 | approx. 2,2 g/cm ³ |
| Refraction index at 20 °C | | 1,46 |
| Silanol group density | | 2 SiOH/nm ² |
| INCI name | | Silica |
| Physical-chemical properties | | |
| BET surface | DIN ISO 9277 DIN 66132 | 175 - 225 m ² /g |
| pH-Value | DIN EN ISO 787-9 | 3,8 - 4,3 |
| Tamped density | DIN EN ISO 787-11 | approx. 40 g/l |
| Loss on drying , ex works (2 h at 105 °C) | DIN EN ISO 787-2 | < 1,5 % |
| Sieve residue , acc. to Mocker > 40 µm | DIN EN ISO 787-18 | < 0,03 % |

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

The data presented in this medium 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 medium 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 information provided by us does 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 product 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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For technical, quality, or product safety questions, please contact:

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