

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

Physical-chemical properties	Test procedure	Unit	Value
BET-surface area	DIN ISO 9277/ DIN 66132	m ² /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 ³⁾ (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[®] N20 is offered in following packaging:

- * paper bags on pallet:
10 kg, 20 lbs or 10 lbs bags, (160 kg, 320 lbs or 300 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[®] N20 may cause electrostatic charges.

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