HDK® N20ST

Pyrogenic Silica - Fumed Silica

Characteristics

Synthetic, hydrophilic amorphous silica, produced via flame hydrolysis

Special characteristics

White colloidal powder of high purity

Application

HDK® N20ST 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® N20ST shows a lower thickening activity compared to HDK® N20.

Processing

A good dispersion of HDK® N20ST is a must to assure optimum performance.
More detailed information about the application and processing of HDK® N20ST is available in our HDK-brochures and on the WACKER web site (http://www.wacker.com/hdk)

Storage

HDK® N20ST has a shelf life of at least 24 months if stored in unbroken original packaging in dry storage areas. The “Best use before end“ - date of each batch is shown on the product label.

If the material is kept beyond the shelf life recommended on the product label, it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.

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 3262-19	%	<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 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® N20ST is offered in following packaging:

* paper bags on pallet:
  10 kg or 20 lbs bags, (160 kg or 320 lbs per pallet)
* Big bags:
  150 kg, (big bags on pallets)

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® N20ST may cause electrostatic charges.
Like other amorphous silicas HDK® N20ST does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

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

Version 3.2 from 28-04-05 replaces Version 3.1 from 08-04-04

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

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