HDK® N20PLUS

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

[1]in 4% aqueous dispersion
[2]acc. to Mocker > 40 µm
[3]ex works (2 h at 105 °C)

General Characteristics

Property	Condition	Value	Method
Content SiO_2[1]	-	> 99.8 %	DIN EN ISO 3262-19
Density[2]	20 °C	approx. 2.2 g/cm^3	DIN 51757
INCI name	-	Silica	-
Loss of weight[3]	-	< 2 %	DIN EN ISO 3262-19
Refraction index	-	1.46	-
Silanol group density	-	2 SiOH/nm^2	-

[1]based on the substance heated at 1000 °C for 2 h
[2]SiO_2
[3]at 1000 °C / 2h (based on the substance dried at 105 °C for 2 h)

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

Applications

- Architectural Coatings
- Composites
- Industrial Coatings
- Offset Printing
- Personal Care
- Powder Coatings

Application details

HDK® N20PLUS 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® N20PLUS is used as a reinforcing filler in elastomers, mainly silicone-elastomers.
In comparison to HDK® N20 the product shows a higher thickening efficiency in liquid formulations.
HDK® N20PLUS acts as a free flow additive in the production of technical powders.
HDK® N20Plus is not suitable for pharmaceuticals, food and feed.
A good dispersion of HDK® N20PLUS is a must to assure optimum performance.
More detailed information about the application and processing of is available in our HDK-brochures and on the WACKER web site.

Packaging and storage

Packaging

HDK® N20PLUS is offered in following packaging:

- pallet with paper bags: 10 kg bags
- Big bags: 150 kg (big bags on pallets)

Storage

The 'Best use before end' date of each batch is shown on the shipping label and the certificate of analysis.
HDK® N20PLUS 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® N20PLUS may
cause electrostatic charges. Like other amorphous silicas HDK® N20PLUS does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

QR Code HDK® N20PLUS

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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
info@wacker.com, www.wacker.com