

# HDK® H13L

Pyrogenic Silica

## Characteristics

Synthetic, hydrophobic amorphous silica, produced via flame hydrolysis

## Special characteristics

White colloidal powder of high purity

## Application

HDK® H13L is applied as a thickening, thixotropic and antisedimentation agent in coatings, printing inks, adhesives and others.

It is mainly used in polar systems. Due to its strong hydrophobicity HDK® H13L is well suited for solvent-free systems, for high solids and for waterborne coatings.

## Processing

A good dispersion of HDK® H13L is a must to assure optimum performance.

More detailed information about the application and processing of HDK® H13L is available in our HDK-brochures and on the WACKER web site (<http://www.wacker.com/hdk>)

## Storage

HDK® H13L 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
density of SiO <sub>2</sub>		g/l	2200
silanol group density		SiOH/nm <sup>2</sup>	ca. 0.6
electric resistivity (density 40 g/l)		[Ω cm]	>10 <sup>13</sup>
BET-surface area of the hydrophobic silica	DIN ISO 9277/ DIN 66132	m <sup>2</sup> /g	ca. 110

Physical-chemical properties	Test procedure	Unit	Value
BET-surface area of the hydrophilic silica	DIN ISO 9277/ DIN 66132	m <sup>2</sup> /g	110 - 140
Carbon content		%	ca. 1.5
pH, in 4 % dispersion <sup>2)</sup>	DIN EN ISO 787-9		3.8 – 4.8
tamped density	DIN EN ISO 787-11	g/l	ca. 70
loss on drying <sup>3)</sup> (2 h at 105°C)	DIN EN ISO 787-2	%	< 0.5
sieve residue, acc. to Mocker > 40 μm	DIN EN ISO 787-18	%	< 0.05
Surface modification		-OSi(CH <sub>3</sub> ) <sub>2</sub> -	

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

2) 1:1 mixture of water-methanol

3) ex works

## Packaging

HDK<sup>®</sup> H13L is offered in following packaging:

- \* paper bags on pallet:  
10 kg bags, (180 kg per pallet)

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> H13L may cause electrostatic charges.

Like other amorphous silicas HDK<sup>®</sup> H13L 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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