

# HDK® H17

Pyrogenic Silica - Fumed Silica

## Characteristics

Synthetic amorphous silica produced via flame hydrolysis of chlorosilane, followed by an extensive hydrophobation treatment.

## Special characteristics

White colloidal powder of high purity.

## Application

HDK® H17 is applied as a thickening and thixotropic agent in composites, coatings, adhesives and sealants. It is especially effective in vinylester, epoxy, polyurethane and other solventless formulations.

## Properties

HDK® H17 is characterized by

- outstanding hydrophobicity
- high thickening behaviour
- reduced interaction with hydrophilic resins, additives, and formulation components

## Processing

HDK® H17 is added during production as received.

A good dispersion of HDK® H17 in the matrix resin is essential to assure the best possible performance. Handling in closed units will prevent impairment by dust.

More detailed information about the general application and processing of HDK® H17 is available in our brochures and on the WACKER web site (<http://www.wacker.com/hdk>)

## Storage

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

## Packaging

Standard packaging for HDK® H17 is a multiple layer 10 KG bag on pallets shrink-wrapped with PE film. As low dust alternative, a proprietary bigbag system is available as bulk packaging option.

## Product data

Physical and chemical characteristics	Test procedure	Unit	Value
SiO <sub>2</sub> -content (2h, 1000 °C)	DIN 55921	%	≥ 99.8
BET surface area		m <sup>2</sup> /g	≈ 100
BET surface area of hydrophilic silica	DIN 66131	m <sup>2</sup> /g	≈ 150
electric resistivity		[Ω m]	> 10 <sup>13</sup>
pH value of 4% dispersion (H <sub>2</sub> O:MeOH)	DIN ISO 787/9		≈ 5
Tap density	DIN ISO 787/11	g/L	≈ 50
Moisture (loss on drying at 105 °C, 2h)	DIN ISO 787/2	%	≈ 0.3
Carbon content		%	≈ 4.5
Surface modification	-OSi(CH <sub>3</sub> ) <sub>2</sub> -		

This data is considered an indication of the originally packaged and sealed product only and is not fit for use as calculation base for formulations and recipes.

## 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® H17 may cause electrostatic charges.

Like other amorphous silicas, HDK® H17 does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

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

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