WACKER SILICONES HDK®

HDK® S13

Pyrogenic Silica - Fumed Silica

Characteristics

Synthetic, hydrophilic amorphous silica, produced via flame hydrolysis

Special characteristics

White colloidal powder of high purity

Application

HDK® S13 is applied as a thickening and thixotropic agent in silicone sealants.
HDK® S13 is used as a reinforcing filler in elastomers, mainly silicone elastomers.

Processing

A good dispersion of HDK® S13 is a must to assure optimum performance.

More detailed information about the application and processing of HDK® S13 is available in our HDK-brochures and on the WACKER web site (http://www.wacker.com/hdk)

Storage

HDK® S13 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 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 50 g/l)		[Ω cm]	$>10^{13}$

Physical-chemical properties	Test procedure	Unit	Value
BET-surface area	DIN ISO 9277/ DIN 66132	m^2/g	110 - 140
pH, in 4 % aqueous dispersion	DIN EN ISO 787-9		3.8 – 4.5
tamped density	DIN EN ISO 787-11	g/l	ca. 50
loss on drying [3] (2 h at 105°C)	DIN EN ISO 787-2	%	< 1.0
sieve residue, acc. to Mocker > 40 µm	DIN EN ISO 787-18	%	< 0.03

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® S13 is offered in following packaging:

* paper bags on pallet:
  10 kg bags, (160 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® S13 may cause electrostatic charges.
Like other amorphous silicas HDK® S13 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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