

HDK[®] T40



Pyrogenic Silica

Synthetic, hydrophilic, amorphous silica, produced via flame hydrolysis. Standard product for industrial applications.

Properties

White colloidal powder of high purity.

Technical data

Specification

Property	Condition	Value	Method
BET surface	-	360 - 440 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

¹in 4 % dispersion (1 : 1 mixture of water-methanol)

²acc. to Mocker > 40 µm

³ex works (2 h at 105 °C)

General Characteristics

Property	Condition	Value	Method
Density ⁽¹⁾	20 °C	approx. 2.2 g/cm ³	DIN 51757
Loss of weight ⁽²⁾	-	< 2 %	DIN EN ISO 3262-20
Refraction index	-	1.46	-
SiO ₂ content ⁽³⁾	-	> 99.8 %	DIN EN ISO 3262-20
Silanol group density	-	2 SiOH/nm ²	-

¹SiO₂

²at 1000 °C / 2h (based on the substance dried at 105 °C for 2 h)

³based on the substance heated at 1000 °C for 2 h

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Additives for Rheology Control
- Adhesives
- Composites
- Flexographic Printing
- Gravure Printing
- Industrial Coatings
- Industrial Wood Coatings
- Inkjet Paper
- Offset Printing
- Printing Inks
- Pulp, Paper & Printing Processes
- Rheology Control
- Rheology Control & Free-Flow Agent
- Rheology Control with HDK®
- Rheology Modifiers
- Screen Printing

Application details

HDK® T40 is applied as a thickening and thixotropic agent in many organic systems, e.g. in unsaturated polyesters, coatings, printing inks, adhesives and others, if high gloss and transparency is required.

HDK® T40 is used as a reinforcing filler in elastomers, mainly silicone-elastomers.

HDK® T40 is used as a free flow additive in the production of powder substances.

HDK® T40 is not suitable for pharmaceuticals, food and feed.
A good dispersion of HDK® T40 is a must to assure optimum performance.

More detailed information about the application and processing of HDK® T40 is available in our HDK-brochures and on the WACKER web site.

Packaging and storage

Packaging

HDK® T40 is offered in following packaging:

- pallet with paper bags: 10 kg bags

Storage

The 'Best use before end' date of each batch is shown on the shipping label and the certificate of analysis. HDK® T40 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® T40 may cause electrostatic charges. Like other amorphous silicas HDK® T40 does not show either carcinogenic (IARC classification, Volume 68, 1997) or mutagenic properties.

QR Code HDK® T40



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

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