

SiSiB[®] SILICONES

Power Chemical Corporation Limited

FUMED SILICA

Power Chemical Corporation Limited



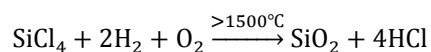


COMPOSITION

SiSiB® FS-0100 is a hydrophilic fumed silica with a specific surface area of 100 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	100 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<1.5%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<1.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



SiSiB[®] FS-0100 SILICA

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APPLICATIONS

SiSiB[®] FS-0100 can be used in aqueous dispersion for chemical mechanical planarization and as a reinforcing filler in elastomers, mainly silicone-elastomers.

PACKING AND STORAGE

SiSiB[®] FS-0100 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB[®] FS-0100 has a shelf life of 24 months under dry conditions.

NOTES

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability. We disclaim liability for any incidental or consequential damages.

Please send all technical questions concerning quality and product safety to: silica@PCC.asia

Power Chemical
ISO9001 ISO14001 certified

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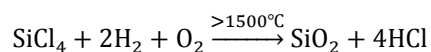


COMPOSITION

SiSiB[®] FS-0130 is a hydrophilic fumed silica with a specific surface area of 130 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	130 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<1.0%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<1.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



APPLICATIONS

SiSiB® FS-0130 can be applied as a thickening and thixotropic agent in silicone sealants.

SiSiB® FS-0130 can be used as a reinforcing filler in elastomers, mainly silicone elastomers.

PACKING AND STORAGE

SiSiB® FS-0130 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB® FS-0130 has a shelf life of 24 months under dry conditions.

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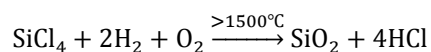


COMPOSITION

SiSiB® FS-0150 is a hydrophilic fumed silica with a specific surface area of 150 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	150 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<1.0%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<1.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



APPLICATIONS

SiSiB[®] FS-0130 can be applied as a thickening and thixotropic agent in silicone sealants.

SiSiB[®] FS-0130 can be used as a reinforcing filler in elastomers, mainly silicone elastomers.

PACKING AND STORAGE

SiSiB[®] FS-0150 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB[®] FS-0150 has a shelf life of 24 months under dry conditions.

NOTES

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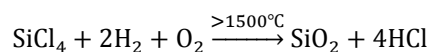


COMPOSITION

SiSiB® FS-0200 is a hydrophilic fumed silica with a specific surface area of 200 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	200 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<2.0%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<2.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



APPLICATIONS

SiSiB[®] FS-0200 can be applied as a thickening and thixotropic agent in many organic systems, e.g. in unsaturated polyesters, coatings, printing inks, adhesives, cosmetics and others. It is used as a reinforcing filler in elastomers, mainly silicone-elastomers, like HTV and RTV-2K.

SiSiB[®] FS-0200 can act as a free flow additive in the production of technical powders, in food and feed and in pharmaceutical products.

PACKING AND STORAGE

SiSiB[®] FS-0200 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB[®] FS-0200 has a shelf life of 24 months under dry conditions.

NOTES

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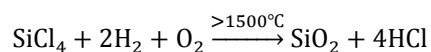


COMPOSITION

SiSiB® FS-0250 is a hydrophilic fumed silica with a specific surface area of 250 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	250 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<2.0%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<2.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



APPLICATIONS

SiSiB[®] FS-0250 can be applied as a thickening and thixotropic agent in many organic systems, e.g. in unsaturated polyesters, coatings, printing inks, adhesives, cosmetics and others. It is used as a reinforcing filler in elastomers, mainly silicone-elastomers, like HTV and RTV-2K.

SiSiB[®] FS-0200 can act as a free flow additive in the production of technical powders, in food and feed and in pharmaceutical products.

PACKING AND STORAGE

SiSiB[®] FS-0250 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB[®] FS-0250 has a shelf life of 24 months under dry conditions.

NOTES

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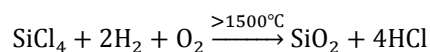


COMPOSITION

SiSiB® FS-0300 is a hydrophilic fumed silica with a specific surface area of 300 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	300 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<2.0%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<2.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



SiSiB® FS-0300 SILICA

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APPLICATIONS

SiSiB® FS-0300 can be applied as a thickening and thixotropic agent in many organic systems, e.g. in unsaturated polyesters, coatings, printing inks, adhesives and sealants.

SiSiB® FS-0300 is used as a reinforcing filler for HTV and LSR at a high transparency level.

PACKING AND STORAGE

SiSiB® FS-0300 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB® FS-0300 has a shelf life of 24 months under dry conditions.

NOTES

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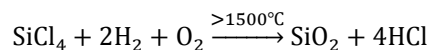


COMPOSITION

SiSiB® FS-0380 is a hydrophilic fumed silica with a specific surface area of 380 m²/g.

INTRODUCTION

Hydrophilic fumed silica is manufactured by hydrolysing volatile chlorosilanes in an oxyhydrogen flame. In chemical terms, the loose white powder consists of highly pure amorphous silicon dioxide. Hydrophilic silica is wetted by water and can be dispersed in water. Hydrophobic silica is produced by the chemical reaction of hydrophilic silica with reactive silanes, e.g. chlorosilanes or hexamethyldisilazane. It has water-repellent properties and is no longer dispersible in water.



All untreated fumed silicas are characterized by:

- ◆ High purity
- ◆ Aggregated structure
- ◆ Submicron particle size
- ◆ Low bulk density
- ◆ Hydrophilic surface

TYPICAL PHYSICAL PROPERTIES

CAS No.	112945-52-5 or 7631-86-9
EINECS No.	231-545-4
Specific surface area (BET)	380 ± 15 m ² /g
Average primary particle size	5~40 nm
SiO ₂ content, wt.% (based on the substance heated at 1000°C for 2 h)	> 99.8%
Loss on drying, ex works (2h at 105 °C) wt.%	<2.5%
Ignition loss (Loss of weight at 1000°C / 2h), wt.% (based on the substance dried at 105°C for 2 h)	<2.0%
pH-Value (in 4 % aqueous dispersion)	3.6~4.3
Tamped density	~50g/l



APPLICATIONS

SiSiB[®] FS-0380 can be 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.

SiSiB[®] FS-0380 can be used as a reinforcing filler in elastomers, mainly silicone-elastomers.

SiSiB[®] FS-0380 can be used as a free flow additive in the production of powder substances and food stuff.

PACKING AND STORAGE

SiSiB[®] FS-0380 is supplied in multiple layer 10 kg bags.

In the original unopened packaging, SiSiB[®] FS-0380 has a shelf life of 24 months under dry conditions.

NOTES

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