

LUDOX® PW-50 X

Colloidal Silica

Product Description

LUDOX® PW-50 X Colloidal Silica contains synthetic amorphous silica with low specific surface area. The alkaline aqueous colloidal dispersion contains 50% silica.

Product Characteristics

The following specification parameters will be stated in our Certificate of Analysis and are equivalent for the product made by Grace in USA and Germany.

Property	UOM	Value	Test Method
Specific Gravity (15.6°C / 60°F)		1.383 - 1.412	L6550.310.02.EC / GRACE Q 766
Silicon Dioxide (SiO ₂)	% m/m	48.5 - 51.5	L6550.083.01.EC / GRACE Q 758
pH (25°C/77°F)		9.8 - 10.6	L6550.280.01.EC / GRACE Q 760
Viscosity (25°C/77°F)	mPa.s	20 max.	L6550.545.01.EC / GRACE Q 767
Specific Surface Area	m ² /g	60 - 90	L6550.005.02.EC / GRACE Q 763
Alkalinity as Na ₂ O	% m/m	0.15 - 0.30	L6550.005.01.EC / GRACE Q 762

Typical Properties and Recommended Applications

The following typical properties data is given for informational purposes only and is not to be interpreted as product or in-process specifications.

Property	UOM	Value
Density	g/cm ³ / lb/gal	1.4 / 11.7
Boiling Point (760 mm Hg)	°C / °F	100 / 212
Melting Point	°C / °F	0 / 32
Vapor Pressure (25°C/77°F)	mm Hg	24
Vapor Pressure (38°C/100.4°F)	mm Hg	48
Stabilizing Counter Ion		Sodium
Particle Charge		Negative

LUDOX® PW-50 X Colloidal Silica may be used as a high temperature binder for ceramics and refractory fibers. It may also be used in formulations for fine polishing slurries, and antislip treatments for paper, textiles and other materials and as delusterants and antisoiling agents. It may also be used as an adhesion promoter in coatings. Key features are:

- Good binding strength and excellent stability
- Large particle size and polydisperse particle distribution

LUDOX® PW-50 X Colloidal Silica

Packaging Information

The standard packaging for LUDOX® PW-50 X Colloidal Silica for Manufacturing Location Germany is:

290 kg/PE drum	4 drums/pallet	1160 kg/pallet	pallet dimension: 1140 x 1140 mm
1360 kg/IBC	1 IBC/pallet	1360 kg/pallet	pallet dimension: 1000 x 1200 mm

Tank Truck Bulk Delivery available

The standard packaging for LUDOX® PW-50 X Colloidal Silica for Manufacturing Location US is:

625 lbs (283.45 kg) kg/PE drum	4 drums/pallet	2500 lbs (1133.8 kg)/pallet
2998 lbs (1359.6 kg)/IBC	1 IBC/pallet	2998 lbs (1359.6 kg)/pallet

Tank Truck Bulk Delivery available

Handling & Storage Recommendations

- Store at temperatures above 2°C/35°F and below 43°C/110°F to avoid irreversible gel formation or silica precipitation. Bulk storage tanks or drum storage areas should be located in temperature-controlled buildings. Outdoor storage can be used if suitably insulated, heated and protected from the weather. Outside storage should be in a shaded location or a sunscreen should be erected over the tanks or drums.
- Keep the container tightly closed after use. All equipment should be cleaned and sanitized regularly to avoid bacterial contamination.
- Product should be used within 24 months of manufacture.
- Additional information can be found in the Safety Data Sheet (SDS).

Health & Safety Information

LUDOX® PW-50 X Colloidal Silica is a synthetic amorphous silica dispersed in a stable form in water. This material contains a biocide in the amount that guarantees the performance of the product for the duration of its shelf life. For more information, see the Safety Data Sheet or contact your Grace representative. Please refer also to national laws and regulations.

ISO Certification

- ISO 9001 USA, Germany
- ISO 14001 Germany
- ISO 50001 Germany

Other Information

The information contained herein is based on our testing and experience and is offered for the user's consideration, investigation and verification. Since operating and use conditions vary and since we do not control such conditions, we must DISCLAIM ANY WARRANTY, EXPRESSED OR IMPLIED, with regard to results to be obtained from the use of this product. Test methods are available on request.

Contact

For detailed Information, please refer to the Grace website: www.grace.com.

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