

Technical Data Sheet

SioXaL

Colloidal silica



Properties

SioXaL products are colloidal silica dispersions containing SiO₂ nano-particles in water. The particles are spherical having diameters between 8 nm and 35 nm. The stability is caused by electrostatic repulsion. SioXaL products are slightly alkaline dispersions with high purity and long stability. They are weak opalescent liquids which can be mixed with deionized water in all ratios. This, however, can result in a reduced stability. Gelation takes place in contact with electrolytes such as NaCl, CaCl₂ or MgCl₂. Weak gels are formed.

- SioXaL A8:** Anionic, aqueous colloidal silica dispersion; 30 wt.-% solid content; 8 nm mean particle size; pH: 9-10, specific surface: 286 m²/g, viscosity: 6 mPas.
- SioXaL A10:** Anionic, aqueous colloidal silica dispersion; 30 wt.-% solid content; 10 nm mean particle size; pH: 9-10, specific surface: 240 m²/g, viscosity: 5 mPas.
- SioXaL A35:** Anionic, aqueous colloidal silica dispersion; 30 wt.-% solid content; 35 nm mean particle size; pH: 9-10, specific surface: 71 m²/g, viscosity: 7 mPas.

All products do not contain any organic additives.

Applications

The application possibilities are broad, whereby the following possibilities are of special interest:

- Consolidation of sanding and powdering surfaces.
- Binder in mortars.
- Use as filler.
- Consolidation of loose sediments.
- Concrete and cement additive.
- Injection grout for sealing masonry.
- Additive for paints, especially for silicate based paints.
- Preparation of stone replacement masses.
- Impregnation of stone, mortar, plaster.
- Impregnation of wood.



Packaging

All SioXaL products are available in 0.5 L, 1 L, 2.5 L and 5 Liter containers.

Storage

All SioXaL products have to be stored between +5 °C and +25 °C. In unopened, original containers, storage for at least one year is possible. Protect from frost! Protect from permanent light!

Safety

All SioXaL products are slightly alkaline. Avoid any contact with eyes and skin. Use safety glasses and gloves. Immediately rinse off any splashes thoroughly with water. Do not eat, drink or smoke during the application. Clean the tools with water after every application. Keep out of reach of children. Do not allow to penetrate into the sewage system or soils. Keep the containers tightly closed.

Follow the instructions given in our Material Safety Data Sheet!

Before using in large scale, we recommend to treat a small test field in order to find out the most favourable application method and the required volumes of SioXaL-dispersions.

The information mentioned above is state of the art and has been developed by intensive research and development. The application of our products and their use is beyond the range of our influence. Therefore, IBZ-Salzchemie GmbH & Co. KG cannot take any liability from events that result from the information contained in this Technical Data Sheet.



IBZ-Salzchemie GmbH & Co.KG

Schwarze Kiefern 4 • 09633 Halsbrücke • Tel: +49 (0)3731 200155 • Fax: + 49 (0)3731 200156 •
www.ibz-freiberg.de • info@ibz-freiberg.de

