

# Technical Data Sheet

## Sample box “Product Line”

### Content

CaLoSiL® E25 (lime content 25g/L)  
CaLoSiL® E50 (lime content 50g/L)  
CaLoSiL® IP25 (lime content 25g/L)  
CaLoSiL® NP25 (lime content 25g/L)

The sample box is available in two sizes:

- 100 mL of each product
- 500 mL of each product



### Characteristics of the products

All products contain colloidal particles of calcium hydroxide ( $\text{Ca}(\text{OH})_2$ , lime hydrate) stable suspended in different alcohols. The particle sizes range between 50 nm and 250 nm. Consolidation / strengthening is achieved by carbonation of the calcium hydroxide particles by atmospheric carbon dioxide after evaporation of the alcohol. All materials can be applied by dipping, spraying or injection. It is possible to combine the CaLoSiL®-products with silicic acid esters. Detailed information about all CaLoSiL® products are available in the Technical Data Sheet “CaLoSiL® - colloidal nano-particles of lime for stone and plaster consolidation.”

### CaLoSiL® E25

CaLoSiL® E25 bases on ethanol as solvent. It can be used for strengthening of porous stones, mortars and plaster. Characteristics are fast evaporation and good adhesion to the surrounding stone / materials.

### CaLoSiL® E50

Due to the high concentration of suspended calcium hydroxide particles CaLoSiL® E50 is suitable especially for the strengthening of highly porous and destroyed materials. It can be also used for gluing of flakes and filling of small cracks and pores. It is to regard that the high calcium hydroxide concentration can cause the formation of white hazes on treated surfaced. Please consult the Technical Data Sheet “Prevention of White Haze Formation”.

### CaLoSiL® IP25/ CaLoSiL® NP25

CaLoSiL® IP25 and CaLoSiL® NP25 contain iso-propanol (IP) or n-propanal (NP) as solvent. Both alcohols evaporate slower than ethanol. Compared to CaLoSiL® E25 a deeper penetration can be achieved.



## **Mixability with other materials**

All CaLoSiL<sup>®</sup>-products can be intermixed. Blending with ethanol, n-propanol or iso-propanol is possible without any difficulties. In contrast to that, the addition of water results in the formation of solutions characterised by a gel like consistency, when amounts greater than 10 wt.-% are added. Higher water amounts result in flocculation of the calcium hydroxide particles.

## **Storage**

All CaLoSiL<sup>®</sup> types have to be stored between +5 °C and +25 °C. In unopened, original containers, storage for at least 6 months is possible. Settled particles can be re-dispersed by shaking the closed bottle or by ultrasonic treatment. The properties remain unaffected.

## **Safety**

CaLoSiL<sup>®</sup> is flammable/combustible. Keep away from oxidisers, heat, sparks and flames. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. CaLoSiL<sup>®</sup> is strongly alkaline. Use safety glasses and gloves. Do not smoke. Keep containers closed. Wash thoroughly after handling. Keep away from sources of ignition. Please store in a cool, dry place and in a tightly closed container. Further information concerning safety during transport, storage and handling as well as for disposal can be found in our latest Material Safety Data Sheet.

Before using in large scale, we recommend to treat a small test field with CaLoSiL<sup>®</sup> in order to find out the most favourable application method and the required volumes of CaLoSiL<sup>®</sup>.

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. Careful and considered use of CaLoSiL<sup>®</sup> is highly recommended.

