### **Technical Data Sheet**

## CaLoSiL<sup>®</sup> grey

# Colloidal calcium hydroxide nano-particles for stone, plaster and fresco consolidation

#### **Properties**

CaLoSiL<sup>®</sup> grey is a stone strengthener as the other products of the CaLoSiL<sup>®</sup> family, but characterised by special properties concerning consistency, appearance and application possibilities. CaLoSiL<sup>®</sup> grey contains 25 g/L calcium hydroxide nano-particles. The particles are stable dispersed in ethanol. They have sizes between 50 and 250 nm.

Specific properties of CaLoSiL<sup>®</sup> grey are:

• Colour

As the name it already indicates, in contrast to all other materials, the colour is lightly grey. That results from a special production technology.

- Consistency
   It has the same concentrations like the other CaLoSiL<sup>®</sup> products but has a lower viscosity
   and looks more transparent.
- Penetration behaviour

Caused by the lower viscosity, CaLoSiL<sup>®</sup> grey penetrates better and faster, also in relative dense structures, than the other products.

• White haze formation

There is no or just a slightly white haze formation despite using concentrations up to 15 g/L, which can be obtained by dilution with denatured ethanol.

#### **Applications**

CaLoSiL<sup>®</sup> grey is used as strengtheners for stone, mortar and plaster. Due to the low viscosity it is especially suitable for the treatment of relative dense structures. Also the consolidation of powdering surfaces, for example on wall paintings or frescoes, can be realised in a favourable manner.

#### Mixability

CaLoSiL<sup>®</sup> grey can be mixed with all products of the CaLoSiL<sup>®</sup> family. Blending with ethanol, n- or isopropanol is also possible without any difficulties. Mixing with water results in gel like solutions. The addition of high amounts of water causes the flocculation of calcium hydroxide particles.

#### Packaging

CaLoSiL<sup>®</sup> grey is available in 0.5 L, 1 L, 5 L and 10 L containers.

#### Storage

*CaLoSiL*<sup>®</sup> grey has to be stored between +5 °C and +25 °C. In unopened, original containers, storage for 12 months is possible. Settled particles can be re-dispersed by shaking the closed bottle or by ultrasonic treatment. The properties of CaLoSiL<sup>®</sup> grey remain unaffected.

#### Safety

CaLoSiL<sup>®</sup> grey 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> grey is strongly alkaline. Use safety gasses and gloves. Do not breath vapour or mist. Do not smoke. Keep the 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 area with CaLoSiL<sup>®</sup> in order to find out the most favourable application method and the required volumes of CaLoSiL<sup>®</sup> grey.

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> grey is highly recommended.



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