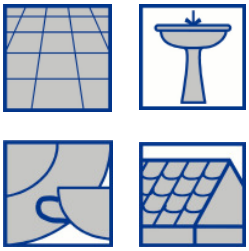
Ceramics Keramik
Céramique



Glaze / engobe deflocculants

DOLAPIX, GIESSFIX

Application

Deflocculants and dispersants are used in glazes/engobes to specifically influence the rheological properties and solids content of the slip. Depending on the particular glaze/engobe type as well as the application procedure, the desired aim is **maximum density at optimum rheological properties without sedimentation**.
The use of liquid deflocculants is especially advantageous for a fine re-adjustment of the viscosity after the glaze / engobe preparation.

Mode of action

In the deflocculants and dispersants from Zschimmer & Schwarz, **inorganic as well as organic components** are used. Inorganic components are mainly **sodium phosphates** while the organic components are **salts of polycarboxylic acids**. In general, the effective anion is organic, while the effective cation is mainly sodium. However, with the polycarboxylic acid salts purely organic products are used, the sodium ion in this case being replaced by an amine. This leads to residue-free combustible ammonium salts.
Liquid deflocculants are already dissociated and consequently take effect very quickly.
The slip viscosity and hence the effectiveness of deflocculants and dispersants are dependent on the solids content and the nature of the raw materials used, as well as other different parameters.
In particular these are:

- water hardness
- particle shape
- particle size distribution
- agglomeration of the particles.

As there are many influencing factors, it is necessary to **adjust the desired rheology of each slip** with the help of individual deflocculation trials, as a general recommendation, without carrying out initial testing, is only possible in very few cases.

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