



Temporary binders

MORMATE, OPTAPIX

Application

In bodies based on plastic clays, and prepared via the liquid phase using dispersants or defloculants, sufficient green strength and dry modulus of rupture is generally achieved through the intrinsic binding properties of the clays. The use of additional temporary binders is then unnecessary.

In cases where the blend does not contain sufficient plastic material, the use of temporary binders can produce an **increase in green strength and dry modulus of rupture**, as well as an **improvement in edge strength**, thus leading to a **reduction in wastage**.

Mode of action

Synthetic polymers are the raw material basis for the binders offered by Zschimmer & Schwarz for the sanitary industry. Thanks to their special composition, these binders are characterized by good general slip compatibility. Through the addition of temporary binders to the casting slip, the raw material particles are coated by polymers that form a bond during drying, and hence give **higher strengths** to the ceramic body as a result of film-forming properties.

In addition to the desired mechanical requirements, a further criterion for the selection of temporary binders is **burnout behaviour**.

Good oxidation characteristics, and hence **complete combustion** during the sintering process, together with **minimum emission levels**, are essential properties; with temporary binders from Zschimmer & Schwarz these are readily achieved under normal oxidizing kiln conditions.