

OPTAPIX KG 50

Binder for glazes and engobes



Chemical basis:

Highly purified carboxymethylcellulose (CMC)

Characteristics:

Appearance:	white powder
Moisture content:	8 % maximum
Solubility:	water-soluble
Bulk density:	approx. 700 g/l
pH (1 %):	approx. 7
CMC content dry:	approx. 99 %
Viscosity (2 %, 25 °C):	approx. 700 mPas

Shelf-life / Packaging:

12 months when stored under proper and dry conditions
Bags of 25 kg

Application:

OPTAPIX KG types differ by their degrees of polymerisation and hence the viscosities of their aqueous solutions.

These additives are used in glazes and engobes as viscosity adjusting, non-foaming binding agents. They improve the abrasion resistance, give glazes or engobes a good fit and prevent running.

Sodium CMC being a polyelectrolyte, the low viscosity, i.e. short-chain types like OPTAPIX KG 6/ KG 12/ KG 25 have a deflocculating effect besides their binding property.

As far as the sodium CMC types with a medium degree of polymerisation such as OPTAPIX KG 50 are concerned, their electrolytic effect is to a large extent compensated by their increased intrinsic viscosity; they, therefore, have a rather neutral effect on the viscosity of the glaze slip, at the usual addition quantities.

High polymer types such as OPTAPIX KG 1000. have a thickening effect on the glaze slip.

In general, an increasing degree of polymerisation will lead to better binding properties and to an improved dehydration, this means the drying time increases.

Further advantages of OPTAPIX KG types are their plasticizing effect on ceramic bodies and an improved dry breaking strength.

The above results have been obtained from trials in our laboratory and plant. In the light of changing conditions they can serve only as a guide and are therefore offered without obligation. We ask you to observe the possible rights of third parties.

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The addition quantity giving optimum results is between 0.05 and 1.0 %, the correct amount depending on the individual working conditions.

They are milled with the glaze constituents or added as aqueous stock solution.

Please note that when using OPTAPIX KG types in stock solutions, glazes and/or body slips, anti-bacterial biocide use is strongly recommended. Consequently, the dosage needs to be adapted to the process conditions. Adequate products and their specific application instructions can be found on our homepage www.zschimmer-schwarz.com or will be sent to you upon request.

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