Lamberti ceramics

Technical Data Sheet
September 2024

# Tixolam AC 88

## Chemical Description

Product based on polysaccharides and silicates.

## Main use

Rheology modifier and binder for ceramic glazes.

## Typical values

**Appearance:** Homogeneous powder

**pH (2% solution):** 8 - 11

**Viscosity (2% solution, Brookfield RVT @ 20 °C, 20 rpm):** 3800 – 5800 cP

## Product properties

TIXOLAM AC 88 has been formulated to have special features compared with similar products: dispersability and solubility in glaze and in water has been improved thanks to the chemical and physical properties of its compounds.

TIXOLAM AC 88 can be used alone or together with other binders/rheology modifiers (i.e. Carbocel and other Tixolam) according to the required rheological parameters.

TIXOLAM AC 88 has been developed to meet white-ware glazing requirements:

- short grinding time;
- short unloading from the mill and sieving time;
- no settling to avoid glazes sedimentation in tanks and reservoirs;
- long shelf life of glaze-slips;
- high flow capacity of spray guns;
- rheological behaviour suitable for the application on vertical or sloping surfaces, avoiding dropping and straining problems;
- short drying time, compatible with high speed "robot" glazing systems;
- good texture and even surface;
- homogeneous coating of surfaces;
- good binding action avoiding crawling, excessive release of dust, cracks and other defects

TIXOLAM AC 88 gives the glaze slip a proper pseudo-plastic rheological behaviour suitable for spray glazing of ceramics.

## Applications

TIXOLAM AC 88 is usually added into the glaze in quantity of 0.2 - 0.5 % (on solids).

The addition of TIXOLAM AC 88 can be done in different ways according to glaze feature, plant organisation and habits:

- Total or partial addition in powder form directly into the ball mill. To reduce grinding time, it is also possible to add TIXOLAM only in the last hour of grinding
- Addition of TIXOLAM AC 88 into the glaze slip unloaded from the mill is very often done with a predispersed paste composed by 4 - 8 parts of Tixolam AC 88 and 96 - 92 parts of water, obtained through a high speed stirrer (standard mixing time: 5-10 minutes). This paste is then kept at rest for 12-24 hours before addition.

The addition to the glaze slip requires a "high speed" stirring, and a time between 20 minutes and 1 hour.

- Addition of TIXOLAM in powder form directly into the glaze which has to be made carefully to get a complete and homogeneous dispersion of the binder without formation of clots.

In any case a partial addition of TIXOLAM AC 88 into the ball mill at the beginning of grinding (dosage around 0,05 % on solids) as grinding aid and as suspending agent is suggested to improve grinding and to avoid quick glaze sedimentation.

Take also into consideration that glaze slips might show thinning or thickening behaviour in the first hours after addition of Tixolam AC 88.

Then we recommend a resting time to reach stable rheological parameters of the glaze before its use. The proper resting time depends on local working conditions and has to be checked on site.

TIXOLAM AC 88, due to its chemical composition, can be prone to bacterial attacks that can cause sudden changes of rheological characteristics of the glaze; then we recommend the use of antibacterial agents (i.e Carbosan from Lamberti) during glaze preparation to improve its consistency.

## Storage and handling

TIXOLAM AC 88 is stable to prolonged storage under condition where extreme moisture does not occur. The shelf life is at least twelve months if this condition is observed.

## Packaging

25 kg five-ply multiwall paper bag having two plies coated with polyethylene.

## Material safety

"Detailed health and safety information can be found in our safety data sheet, available according to ECC Directive"