

1. Product Description

StenMix® GA 3X is a liquid cement grinding aid-based on modified saccharides and alkanolamines. **StenMix® GA 3X** acts as a dispersant; it neutralizes the electrical charges on the surface of the cement particles, separates the particles from one another and prevents agglomeration during grinding. **StenMix® GA 3X**, through the alkanolamines it contains, contributes to cement hydration and thereby increases its mechanical strength.

2. Uses

StenMix® GA 3X is used in the grinding process during the production of Portland cement and other hydraulic cements. It can be used in open- and closed-circuit ball mills, vertical mills and slag (GGBS) grinding systems. **StenMix® GA 3X** is suitable for applications targeting increased grinding efficiency and higher mill output (tons per hour).

3. Application

StenMix® GA 3X is supplied as a concentrate; before use it is diluted by adding 1 part of soft water to 1 part of product (1:1). Dilution improves dosing accuracy and gives a more uniform distribution of the product over the clinker feed. The product is added onto the clinker feed at the mill inlet or directly into the mill by means of a dosing pump with adjustable flow rate.

For the diluted product, an initial dosage in the range of 0.5-1 per mille by weight of cement (0.05-0.1%; 500-1000 g/ton) may be chosen, but the optimum dosage must be determined by serial plant trials according to the cement type and mill conditions. Since exceeding the recommended dosage range may extend the setting time of the cement, the dosage must be determined carefully through serial trials.

4. Safety

Applicators and supervisors must read the Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be disposed of in compliance with relevant regulations and laws. The application must be carried out by skilled workers under the supervision of experts and the applicators must use all personal protective equipment required for the worksite and the task such as goggles, mask and gloves.

5. Storage

The material must be kept in dry indoor storage. Protect the product from freezing. Products must be stored at +5 °C to +35 °C in enclosed storage protected from direct sunlight.

When stored in unopened packaging, the shelf life is 12 months. Low temperatures may cause freezing or an increase in the viscosity of the product; in this case the product can be used after being warmed to +20 °C and homogenized. In cold environments, the pipelines and dosing equipment must be thermally insulated. After prolonged storage, the product must be stirred thoroughly before use.

Cement Grinding Aid

Highlights

- Increases the grinding efficiency of the cement mill
- Increases the mill output (tons per hour)
- Reduces material build-up on grinding balls and mill liners
- Increases separator efficiency
- Reduces grinding energy consumption per ton
- Increases the mechanical strength of the cement through its alkanolamine content
- Improves the flow characteristics of the cement and facilitates silo discharge



6. Disclaimer

This document is provided for general information and is based on **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information without prior notice.

Stenkim® warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended purpose and for all conditions of transport, storage, application, and use. **Stenkim®** accepts no liability for results obtained under conditions outside its control. **Stenkim®**'s liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

7. Technical Data

Property	Method	Result
Appearance - Color		Brown Liquid
Chemical Composition		Modified Saccharides and Alkanolamines
Density @20 °C	EN ISO 2811-2	1.15 ± 0.02 g/cm ³
pH	ISO 4316	10 ± 1
Chloride Content	EN 480-10	0.3%
Packaging		1100 kg IBC
Shelf Life		12 months

Stenkim® reserves the right to make changes to the values in this table at any time.

