

1. Product Description

StenMix® GA 2X is a liquid, ready-to-use cement grinding aid and strength enhancer based on alkanolamines. **StenMix® GA 2X** acts as a dispersant; it neutralises the electrical charges on the surface of the cement particles, separates the particles from one another and prevents agglomeration during grinding. **StenMix® GA 2X**, through its alkanolamine components, enhances the hydration properties of the clinker and thereby increases the mechanical strength of the cement at all hydration ages.

2. Uses

StenMix® GA 2X 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 2X** is particularly suitable for applications targeting increased cement mechanical strength and a reduced clinker factor (clinker ratio) at equal strength.

3. Application

StenMix® GA 2X is supplied ready to use and is applied without dilution. 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. An initial dosage in the range of 0.5-1 per mille by cement weight (0.05-0.1%; 500-1000 g/tonne) may be chosen, but the optimum dosage must be determined by serial plant trials according to the cement type, the targeted strength and the mill conditions.

4. Safety

Applicators and supervisors must read the Material Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be handled in compliance with relevant regulations and laws. The application must be carried out by skilled workers under supervision of experts and the applicators must use all kinds of 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 closed conditions 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 homogenised. In cold environments, the pipelines and dosing equipment must be thermally insulated.

The product must be stirred thoroughly before use after prolonged storage.

Cement Grinding Aid and Strength Enhancer

Highlights

- Liquid, ready-to-use cement grinding aid and strength enhancer based on alkanolamines
- Increases the grinding efficiency of the cement mill
- Increases the mill output (tons per hour)
- Increases the mechanical strength of the cement at all hydration ages
- Allows the clinker factor to be reduced at equal strength
- Reduces material build-up on grinding balls and mill liners
- Reduces grinding energy consumption per tonne
- Improves the flow characteristics of the cement and reduces pack-set



6. Disclaimer

This document is provided for general information and reflects **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information at any time without 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 application and for all conditions of transport, storage, handling, 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		Alkanolamines
Density	EN ISO 2811-2	1.02 ± 0.02 g/cm ³
pH	ISO 4316	9 ± 1
Chloride	EN 480-10	< 0.1%
Packaging		1100 kg IBC
Shelf Life		12 months

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

