

LGA[®] High Efficiency Grinding Aid and Pack Set Inhibitor

High efficiency grinding aid and pack set inhibitor

Introduction

The LGA[®] series of cement additives is formulated to provide grinding efficiency that is superior to that of traditional grinding aids based on amines or glycols. Laboratory grinds comparing LGA with traditional glycol-based additives have indicated increases in grinding efficiency of 15% at Blaine fineness of 3500–4000 cm²/g for Ordinary Portland Cement.

Product Description

LGA consists of a mixture of special amine salts that are then formulated with more traditional amines or glycols. It is available with either an amine base, as LGA and LGA 70, or with a glycol base, as LGA N, or a blend of amine and glycol, as LGA N 50, to better meet the unique performance requirements of different milling systems. In addition to providing increased grinding efficiency, LGA products also effectively inhibit pack set.

Specifications

Active Ingredients	69.0–81.0
Specific Gravity	1.09–1.15 [@77 °F (25 °C)]
pH	6–9

Typical Properties

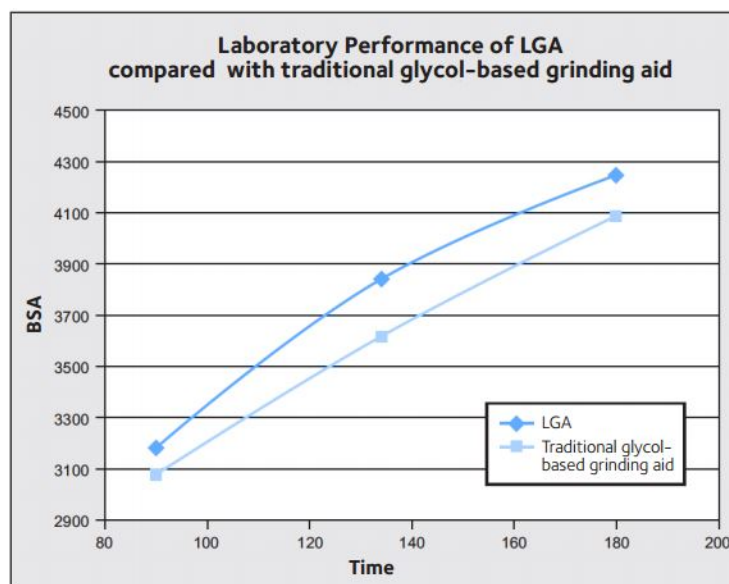
Appearance	Dark brown, low viscosity solution
Odors, Fumes	Alcohol odor with no noxious or toxic fumes
Foaming Point	None
Freezing Point	15 °F (-10 °C)

Product Advantages

- Increased mill output at same cement fineness
- Reduced grinding costs
- Improved dosage efficiency
- Higher cement strengths
- Increased cement flowability

Recommended Addition Rate

According to GCP experience, the typical dosage of LGA as received ranges from 0.02% to 0.06% of cement. The optimum addition rate should be determined through cement mill tests in consultation with GCP personnel.



How to Use

LGA may be proportioned as received; however, dilution with four to eight parts of water is normally recommended in order to facilitate greater proportioning accuracy and better additive distribution. Where extremely small addition rates are used, even greater dilution is recommended.

For dilution, suitable dispensing pumps with adjustable flow rates should be used for optimum performance. It is desirable to introduce LGA into the first compartment of the finish grinding mill to effect maximum distribution and efficiency of the product.

Dosing Equipment

GCP LGA high efficiency grinding aid should be accurately proportioned through a calibrated dosing system, suitable for the cement mill and the output required.

Specification Compliance

LGA is approved for use under ASTM C465 specification as a non-harmful processing addition. It has been thoroughly tested and a test report is available from GCP upon request.

Packaging

LGA is available in 55 gal (210 L) drums, in totes or in bulk by tanker trucks. It contains no flammable materials.

Health & Safety

All precautions defined on the SDS (Safety Data Sheet) for LGA must be followed.

Storage

Where it is expected that the storage tanks will be exposed to freezing temperatures, provisions should be made for insulating and heating the tank and lines in order to prevent excess viscosity and to aid pumpability.

Technical Services

Field Engineers from GCP are available to assist in laboratory and mill test evaluations of LGA. Complete testing equipment and methods for analyzing mill performance and pack set index are also available during plant trials.

gcpat.com | North America Customer Service: 1 877-4AD-MIX1 (1 877-423-6491)

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

LGA is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2018 GCP Applied Technologies Inc. All rights reserved.

GCP Applied Technologies Inc., 62 Whittemore Avenue, Cambridge, MA 02140 USA.

In Canada, 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2021-02-05

gcpat.com/solutions/products/lga-high-efficiency-grinding-aid-and-pack-set-inhibitor