

OPTEVA™ LAF 7023

Cement Additive for Early Strength

Product Description

OPTEVA™ LAF 7023 is a chemical additive used as a cement constituent (European standard EN 197, point 5.5) to improve the manufacture and the properties of the cements. OPTEVA™ LAF 7023 is an aqueous solution of selected raw materials to suit the requirements of the cement manufacture.

Physical Properties

OPTEVA™ LAF 7023	
Appearance	Brown liquid
Density (g/l)	1030-1080
pH	9,5-11,5

Recommended Addition Rate

According to GCP Applied Technologies experience the addition rate of OPTEVA™ LAF 7023 is typically in the range of 400-600 g/t of treated cement. However the optimum addition rate of OPTEVA™ LAF 7023 depends on the characteristics of the material and the grinding circuit and is normally assessed through industrial tests. GCP personnel are available for assistance. Deviation from the optimum cannot guarantee the expected results and could have an impact on the cement characteristics. Overdosing can lead to a reduction in mill retention time and a possible loss of grinding efficiency, together with “mill flushing”, excessive flowability, as well as undesired modifications of cement properties.

Advantages

- Reduced tendency of re-agglomeration
- Improved flowability
- Lower pack set tendency
- Increased mill output
- Increased early strength
- Chloride free

Benefits

OPTEVA™ LAF 7023 is a grinding aid for cement, which reduces the tendency of re-agglomeration of the fine particles, formed during the comminution process.

OPTEVA™ LAF 7023 permits improvements of the flowability of the finished cement, of the efficiency of the mill and separator and thus increases the production rate with a corresponding reduction in grinding energy consumption. Cements produced with OPTEVA™ LAF 7023 have a lower pack-set tendency and hence can provide advantages during loading and unloading operations.

OPTEVA™ LAF 7023 improves the particle size distribution and activates the hydration kinetics, and thus increases the strength of the treated cement.

The resulting enhanced performance can be used to meet specific market needs or, if desired, to reduce cement fineness and lower unit production costs, or to reduce the clinker factor, by using increased levels of supplementary cementitious material, while retaining the previous cement performance characteristics.

Certification

OPTEVA™ LAF 7023 meets the requirements of EN 197-1.

Typical Applications

OPTEVA™ LAF 7023 is suitable for the grinding of most cements in all types of grinding systems, including those with ball mills, open and closed circuit, roll press, horizontal roller and vertical roller mills.

Main applications are:

- Portland cements
- Portland blended cements
- Portland composite cements

OPTEVA™ LAF 7023 has particular benefit in the production of slag and fly ash blended cements because of its good grinding efficiency and improvement to the early strength.

How to Use

OPTEVA™ LAF 7023 should be added on to the feed belt or injected pure or diluted (also with the cooling water) into the mill. For an accurate proportioning of OPTEVA™ LAF 7023 a volumetric metering pump is suitable. GCP personnel are available for assistance.

Packaging and Storage

OPTEVA™ LAF 7023 is supplied in 205 litre drums, in 1000 litre plastic containers or bulk.

OPTEVA™ LAF 7023 does not require particular precaution for storage. However it should be protected from freezing or excessive hot conditions. For tanks and containers placed outside in cold conditions a heating system or a re-mixing device is recommended. It is also advisable to insulate exposed pipelines.

Shelf life is at least 12 months if stored in sealed manufacturer's containers.

Handling Precautions

OPTEVA™ LAF 7023 does not require particular precaution for health and safety. For further advice please read the Material Safety Data Sheet. Accidental release or spillage to be absorbed with an inert, non combustible material, such as sand or sawdust. Tanks and container can be cleaned with water.

REACH

All of our products sold in the EU comply with REACH obligations. Our customers, as manufacturers or downstream users may sell their products utilizing GCP Applied Technologies products with confidence that the substances in them may be placed on the market in compliance with REACH.

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