

EUROGRIND GS 170

Cement additive for strength enhancement



Description

EUROGRIND GS 170 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.

EUROGRIND GS 170 is an aqueous solution of selected raw materials to suit the requirements of the cement manufacture.

Physical Properties

Appearance: Brown liquid.

Density (g/l): 1.14 ± 0.01 .

pH: 5,5-7,5.

Recommended Addition rate

The addition rate of EUROGRIND GS 170 is typically in the range of 300-400 g/t of treated cement. However the optimum addition rate of EUROGRIND GS 170 depends on the characteristics of the material and the grinding circuit and is normally assessed through industrial tests.

Alfaiha tech 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.

Benefits

EUROGRIND GS 170 is a grinding aid for cement, which reduces the tendency of reagglomeration of the fine particles, formed during the comminution process. EUROGRIND GS 170 Penn its 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 EUROGRIND GS 170 have a lower pack-set tendency and hence can provide advantages during loading and unloading operations. EUROGRIND GS 170 improves the particle size distribution and activates the hydration kinetics, and thus increases the strength of the treated cement. The formulation of EUROGRIND GS 170 is based on selected alkanolamines and other raw materials, and permits increases of the compressive strength at the initial and medium to later ages. 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.

Advantages

- Reduced tendency of reagglomeration.
- Improved flowability.
- Lower pack set tendency.
- Increased mill output.
- Compressive strength increases at medium to later ages.

Certification

EUROGRIND GS 170 meets the requirements of EN 197.

Typical Applications

EUROGRIND GS 170 can be used 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.

EUROGRIND GS 170 has particular benefit in the production of blended cements because of its good grinding efficiency and improvement to all age's strength.

Uses

EUROGRIND GS 170 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 EUROGRIND GS 170 a volumetric metering pump is suitable.

Packaging and Storage

EUROGRIND GS 170 is supplied in 205 liter drums, in 1000 liter plastic containers or bulk.

EUROGRIND GS 170 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 24 months if stored in sealed manufacturer's containers.

Handling Precautions

EUROGRIND GS 170 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, noncombustible material, such as sand or sawdust. Tanks and container can be cleaned with water.

Contact Information

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v01-02-2022