

MasterCem[®] ES 2316 (formerly Cementium ES 2316)

High Performance Early Strength Enhancer for Cements

DESCRIPTION

MasterCem ES 2316 is a highly effective early strength enhancer and formulated with high end raw materials to guarantee superior performance of the product.

RECOMMENDED USES

- Ordinary Portland cement
- Blended cement with limestone, fly ash or slag.

The special characteristics of **MasterCem ES 2316** effectively activate the hydration process between cement particles and the non-reactive or reactive fillers.

For additional information on **MasterCem ES 2316** and its use in developing special performance characteristics, contact your local BASF Construction Chemicals Sales field representative.

FEATURES AND BENEFITS

MasterCem ES 2316 considerably increases cement early strength better than conventional grinding aids or early strength enhancer. It is very effective as the catalyst for the early hydration of the cement particles and improving the reaction between C₃A and gypsum to produce C₃A-hydration products which overall improves the early strength of cement

MasterCem ES 2316 also performs as a cement grinding aid. These characteristics contribute to the following:

- Increased cement mill output at the same cement fineness between 6% and 15%.
- Reduced total cement production by reducing grinding costs per ton of cement and replacing clinker with other fillers.
- Improved early strength of cement between 15% and 30
- Improved cement dry flowability.

PERFORMANCE TEST DATA

Aspect	Dark Brown Liquid
Relative Density	1.19 ± 0.01 at 25° C
pH	≥ 6 at 25° C

DOSAGE

The typical dosage rate for **MasterCem ES 2316** is as per the table below:

Type of Cement	Dosage Rate (gram / ton cement)
Ordinary Portland	150- 1000
Other hydraulic cements	150- 1000

The strength development of cement is influenced by the chemical and physical composition of the basic ingredients of the cement, grinding process parameters and clinker characteristics. Plant trial or laboratory scale ball mill test is recommended to determine the optimum dosage required to achieve specific requirements.

Higher dosage might be needed for higher percentage of clinker replacement or less reactive cement

APPLICATION

MasterCem ES 2316 can be added at the clinker feed conveyer belt or directly into the cement mill's first compartment. A proper dosing pump is required to ensure the correct dosage into the cement for obtaining the optimum performance. Our technical supports are available to provide assistance in the use of **MasterCem ES 2316** with the manual, automatic or computerized dispensing system.

PACKAGING

MasterCem ES 2316 is supplied in 200 kg drums, or in bulk on request..

STORAGE /SHELF LIFE

MasterCem ES 2316 can be stored for 12 months if stored at temperatures above 5°C, in tightly sealed original packaging. If found to be frozen, thaw it at 20°C and reconstitute by stirring.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local BASF representative

PRECAUTIONS



The Chemical Company

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As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable

item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

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NOTE

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