

# SYNCHRO<sup>®</sup> 100 Reducing Additive

Chromium (VI) Reducing Additive

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## Product Description

SYNCHRO<sup>®</sup> 100 is a patent pending liquid additive that has been formulated around stannous sulphate.

## Product Advantages

- Exceptional cement storage stability
- Ease of use
- Liquid Additive
- No staining or retardation
- Compatible with cement additives and concrete admixtures

## Uses

SYNCHRO<sup>®</sup> 100 is used to reduce the level of soluble chromium(VI) ions present when cement is mixed with water.

## Function

Chromium is present as a trace element in the raw materials used in the manufacture of cement clinker. In the oxidizing burning conditions of the cement kiln chromium(VI) may form.

SYNCHRO<sup>®</sup> 100 reduces this hexavalent chromium in aqueous cementitious systems to chromium(III), which forms a stable complex that precipitates.

## Addition Rates

SYNCHRO<sup>®</sup> 100 has a linear dose response from 2–20 ppm of chromium(VI). Typical dose for 5 ppm chromium(VI) is between 120 and 200 ppm and for 10 ppm of chromium(VI) is between 200 and 350 ppm. Actual dose will depend on the desired cement shelf-life and on cement grinding and storage conditions.

## Compatibility with Other Admixtures

The use of SYNCHRO<sup>®</sup> 100 does not influence the performance of cement, mortar or concrete.

SYNCHRO<sup>®</sup> 100 is compatible with commonly used cement additives and concrete admixtures.

## Storage Stability

Chromium(VI) levels of  $\leq 2$  ppm have been maintained for well over 3 months in cements treated with SYNCHRO® 100. Storage stability at different plants depends on milling and storage conditions.

## Dosing Equipment and Storage

See GCP recommended system configuration and materials of construction.

## Packaging

SYNCHRO® 100 is available in 1 m<sup>3</sup> IBC containers weighing approximately 1500 kg.

SYNCHRO® 100 may also be supplied to certain locations in bulk.

## Health & Safety

All precautions defined on the SDS (Safety Data Sheet) for SYNCHRO® 100 must be followed.

## Technical Services

Field Engineers from GCP are available to assist in laboratory and mill test evaluations of SYNCHRO® 100.

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