

DELVO[®] EASY STABILISER

Extended storage and re-use of truck mixer washwater and fresh concrete

Description

DELVO[®] EASY STABILISER is a self-contained product in powder form designed to control the hydration of cement in concrete washwater and fresh concrete.

Fields of application

Stabilization and re-use of truck mixer washwater:

At the end of each day, when a ready-mix truck returns to the plant with no leftover concrete, that truck will still contain a considerable amount of cement, fine aggregate and coarse aggregate adhering to the inside of the truck drum. It is a common practice in the ready-mixed concrete industry to wash this residue out using large amounts of water to thoroughly clean the inside of the truck drum.

Conventional methods for the disposal of concrete washwater include dumping:

- At the job site
- At a landfill
- Into a reclaimer / recycler unit
- Into a concrete washwater pit
- In the ready-mix plant yard

The removal of hardened concrete washwater can result in expensive labour costs, excessive wear and tear on front-end loaders, and costly disposal charges.

Stabilization and re-use of fresh concrete:

Similar disposal problems arise when a truck mixer still contains some fresh concrete at the end of the day.

Features and benefits

DELVO[®] EASY STABILISER stops the cement hydration of concrete washwater and fresh

concrete in ready-mix truck drums by forming a protective barrier around cementitious particles. This barrier prevents Portland cement, fly-ash, silica fume and ground-granulated blast-furnace slag from achieving initial set. This barrier either wears off through time or by the addition of fresh concrete.

The morning after overnight or weekend stabilization, the DELVO[®] EASY STABILISER treated washwater or concrete is combined with freshly batched concrete and sent to the job site.

DELVO[®] EASY STABILISER provides the following benefits:

Stabilisation and re-use of truck mixer washwater:

- Reduces/eliminates the amount of water needed to clean ready-mix truck drums.
- Reduces the labour costs of washing out trucks.
- Reduces/eliminates concrete washwater disposal.
- Reduces/eliminates the need for concrete washwater pits, the resulting wear and tear on front-end loaders, and disposal charges.
- Improves profitability for the ready-mix producer.
- Acts as a cleansing agent to reduce the build-up on fins, thereby reducing maintenance costs incurred from chipping out hardened concrete.
- Concrete containing stabilized washwater will experience strength performance equal to or greater than reference concrete without stabilized washwater.

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Stabilization and re-use of fresh concrete:

- Reduces/eliminates fresh concrete disposal.
- Reduces/eliminates the need for disposal facilities, and disposal charges.
- Improves profitability for the ready-mix producer.
- Acts as a cleansing agent to reduce the build-up on fins, thereby reducing maintenance costs incurred from chipping out hardened concrete.
- Concrete containing stabilized concrete mixes will experience strength performance equal to or greater than reference concrete without stabilized concrete.

Compatibility

DELVO[®] EASY STABILISER is compatible with all superplasticizers of the Glenium and Rheobuild series, with the Pozzolith series and all other BASF admixtures, except Stabilmac. It is recommended, however, that your local BASF representative be consulted prior to the combination with any admixture.

***Technical data**

Form	powder
Colour	light pink
Odour	odourless
pH value	11-12 (10% aqueous solution)
Solubility in water	
Chloride content	chloride-free
Physiological effect	slightly irritant

Packaging

DELVO[®] EASY STABILISER is available in boxes of 25 kg (containing 100 bags of 250 g) and in boxes of 17 kg (containing 200 bags of 85 g). The packaging is water soluble.

Application procedure

Mixing

Stabilization and re-use of truck mixer washwater:

- 1) The truck mixer must be empty of any returned concrete. Add 200 to 300 litres of water to the truck drum.
- 2) Move the wash water to the upper rear of the drum.
- 3) Add required number of water soluble bags of DELVO[®] EASY STABILISER
- 4) Return the water to the front of the drum and mix at high speed for 1 minute.
- 5) Move the water quickly to the rear for adequate cleaning of fins.
- 6) Return the water to the front and mix at high speed for 1 minute. Repeat steps 5 and 6 twice and park the truck containing the stabilized washwater for the night or weekend. (For safety reasons, the hatch must be left at a high position.)
- 7) The next day, or after a weekend, reduce the mixing water of the freshly batched concrete that will contain the stabilized washwater by the quantity of water added in step 1.

Stabilization and re-use of fresh concrete:

- 1) Identify the required parameters of the mix in order to determine the adequate dosage of DELVO[®] EASY STABILISER.
- 2) Add the necessary quantity of water to obtain a slump of at least 200 mm and mix for approx. 3 minutes.
- 3) Move the concrete mix to the upper rear of the drum.
- 4) Add required number of water soluble bags of DELVO[®] EASY STABILISER.
- 5) Return the concrete mix to the front of the drum and mix at high speed for 1 minute.
- 6) Move the concrete quickly to the rear for adequate cleaning of fins.

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- 7) Return the water to the front and mix at maximum speed for 5 minutes.
- 8) Park the truck containing the stabilized concrete for the night or weekend. For safety reasons, the hatch must be left at a high position.
- 9) The next day, or after a weekend, mix the concrete slowly for 3 minutes.
- 10) The quantity of the freshly batched concrete must be at least 4 times the quantity of the stabilized mix.
- 11) Add the freshly batched concrete onto the stabilized mix and mix for approx. 5 minutes. The mixing water of the freshly-batched concrete must be reduced by the water, if any, that has been added in step 2.

Consumption

Stabilization and re-use of truck mixer washwater:
Dosage of DELVO[®] EASY STABILISER is 250 g per truck mixer if the water is re-used after one night and 500 g if the water is reused after a weekend.

The dosage of DELVO[®] EASY STABILISER varies depending on the ambient temperature: Use lower dosages in winter and higher dosages in summer.

Stabilization and re-use of fresh concrete:
Minimum dosage of DELVO[®] EASY STABILISER is 85 g per 100 kg of cement.

The required dosage of DELVO[®] EASY STABILISER varies depending on quantity and composition of the mix, time elapsed since batching, slump, concrete temperature and desired length of stabilization. Please consult your local BASF representative.

Storage

If stored dry, sheltered and in unopened packages, DELVO[®] EASY STABILISER has a shelf life of at least one year.

Safety precautions

The pH value of DELVO[®] EASY STABILISER is neutral and therefore, skin contact is harmless. However, it is recommended to wear protective goggles during handling and application. It is further recommended not to take it internally. For further information, see Material Safety Data sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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