

# MasterSet Delvo Easy

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

## Material Description

MasterSet Delvo Easy is a self-contained product in powder form designed to control the hydration of cement in concrete washwater and fresh concrete.

## Areas of Application

### Stabilisation 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.

### Stabilisation 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.

## Characteristics & Benefits

MasterSet Delvo Easy stops the cement hydration of concrete washwater and fresh concrete in ready-mix 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 stabilisation, the MasterSet Delvo Easy treated washwater or concrete is combined with freshly batched concrete and sent to the job site. MasterSet Delvo Easy 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 cleansing agent to reduce the build-up on fins, thereby reducing maintenance costs incurred from chipping out hardened concrete
- Concrete containing stabilised washwater will experience strength performance equal to or greater than reference concrete without stabilised washwater

### Stabilisation 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 cleansing agent to reduce the build-up on fins, thereby reducing maintenance costs incurred from chipping out hardened concrete
- Concrete containing stabilised washwater will experience strength performance equal to or greater than reference concrete without stabilised washwater

## Compatibility

MasterSet Delvo Easy is compatible with all superplasticisers of the MasterGlenium and MasterRheobuild series, with the MasterPozzolith series and all other Master Builders Solutions admixtures, except Stabilmac. It is recommended, however, that your local Master Builders Solutions Technical Sales Representative be consulted prior to the combination with any admixture.



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## Properties

Properties listed are only for guidance and are not a guarantee of performance.

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

## Application

### Mixing

Stabilisation 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 MasterSet Delvo Easy.
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 stabilised 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 stabilised washwater by the quantity of water added in Step 1.

Stabilisation and re-use of fresh concrete:

1. Identify the required parameters of the mix in order to determine the adequate dosage of MasterSet Delvo Easy.
2. Add the necessary quantity of water to obtain a slump of at least 200mm and mix for approximately 3 minutes.
3. Move the concrete mix to the upper rear of the drum.
4. Add required number of water soluble bags of MasterSet Delvo Easy.
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.
7. Return the water to the front and mix at maximum speed for 5 minutes.
8. Park the truck containing the stabilised 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 stabilised mix.
11. Add the freshly batched concrete onto the stabilised mix and mix for approximately 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

**Stabilisation and re-use of truck mixer washwater:**

Dosage of MasterSet Delvo Easy is 250g per truck mixer if the water is re-used after one night and 500g if the water is reused after a weekend.

The dosage of MasterSet Delvo Easy varies depending on the ambient temperature. Use lower dosages in winter and high dosages in summer. Contact your local Master Builders Solutions Technical Sales Representative for advice.

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## Stabilisation and re-use of fresh concrete:

Minimum dosage of MasterSet Delvo Easy is 85g per 100kg of cement.

The required dosage of MasterSet Delvo Easy varies depending on quantity and composition of the mix, time elapsed since batching, slump, concrete temperature and desired length of stabilisation. Please consult your local Master Builders Solutions Technical Sales Representative.

## Packaging

MasterSet Delvo Easy is available in boxes of 25kg (container 100 bags of 250g), or boxes of 17kg (containing 200 bags of 85g). The packaging is water soluble.

## Storage & Shelf Life

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

MasterSet Delvo Easy has a storage life of 12 months.

## Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

## Disclaimer

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### STATEMENT OF RESPONSIBILITY

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