

MasterSet DELVO Easy

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

Material description

MasterSet DELVO Easy is a hydration control admixture in powder form, dispensed in water soluble bags, designed to control the hydration of cement in concrete washwater and in fresh concrete.

Fields of application

MasterSet DELVO Easy is advised for the:

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.

Benefits

MasterSet DELVO Easy 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 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:

Stabilization 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.

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

MasterSet DELVO Easy is compatible with all superplasticizers of the MasterGlenium, MasterEase and MasterCO₂re series and all other Master Builders Solutions admixtures, except for MasterLife SRA 150 and MasterLife SRA 155.

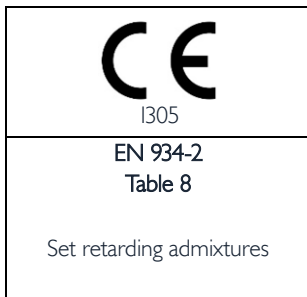


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It is recommended, however, that your local Master Builders Solutions representative be consulted prior to the combination with any admixture.

In compliance with the European Regulation (EU No 305/2011 and EU No. 574/2014) the product is provided with the CE marking according to UNI EN 934-2 and the relative DoP (Declaration of Performance).



Dosage

Stabilization and re-use of truck mixer washwater:

Dosage of MasterSet DELVO Easy is a 250 g. bag per truck

mixer if the water is re-used after one night and 500 gr. (2 X 250 gr. bags) if the water is re-used after a weekend. The dosage of MasterSet DELVO Easy varies depending on the ambient temperature: Use lower dosages in winter and higher dosages in summer.

Stabilization and re-use of fresh concrete:

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 stabilization.

Please consult your local Master Builders Solutions representative.

Packaging

MasterSet DELVO Easy is available in boxes of 20 kg (containing 80 bags of 250 g). The packaging is water soluble.

Storage

If stored dry, sheltered and in unopened packages, MasterSet DELVO Easy has a shelf life of at least one year.

Technical Information	
Form	Powder
Colour	Light pink
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0.1% by mass
Alkali content (Na ₂ O equivalent)	≤ 25 %
Corrosion behaviour	Contains components from EN 934-1 2008 Annex A.2
Compressive strength	Equal consistence: 7 days ≥ 80% 28 days ≥ 90%
Air content	Equal consistence: ≤ 2.0 %
Setting time	initial: test mix ≥ control mix + 90 min final: test mix ≥ control mix + 360 min

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Direction of use

Stabilization and re-use of truck mixer washwater

1. The truck mixer must be empty of any resumed concrete. Add approx. 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 MasterSet DELVO Easy. Return the water to the front of the drum and mix at high speed for 2 minutes.
4. Move the water quickly to the rear for adequate cleaning of fins.
5. Return the water to the front and mix at high speed for additional 2 minutes. 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.)
6. 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 MasterSet DELVO Easy. Add the necessary quantity of water to obtain a slump of at least 200 mm and mix for approx. 3 minutes. Move the concrete mix to the upper rear of the drum.
2. Add required number of water soluble bags MasterSet DELVO Easy.
3. Return the concrete mix to the front of the drum and mix at high speed for 1 minute.
4. Move the concrete quickly to the rear for adequate cleaning of fins.
5. Return the concrete to the front and mix at maximum speed for 5 minutes.
6. Park the truck containing the stabilized concrete 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, mix the concrete slowly for 3 minutes.
8. The quantity of the freshly batched concrete must be at least 4 times the quantity of the stabilized mix.
9. 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.

Safety precautions

The pH value of MasterSet DELVO Easy 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

Other services

For additional technical information, brochures, references, technical reports and technical support please visit www.master-builders-solutions.com/it-it or alternatively contact infomac@masterbuilders.com.

Scan QR code to visit the product page and download the latest version of this technical data sheet and any additional documentation.



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Disclaimer

Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

For further information, please consult the local Technician of Master Builders Solutions. The technical advice on how to use our products, either written or verbally given, are based on the current state of our scientific and practical expertise, and does not imply the assumption of any guarantee and/or responsibility for the final results of works executed using our products.

Therefore, the customer is not exempted from the exclusive task and responsibility of verifying the suitability of our products for the intended use and purposes.

This version supersedes all the previous ones.

Master Builders Solutions Italia Spa

Via Vicinale delle Corti, 21 – 31100 Treviso – Italia

T +39 0422 429200 F +39 0422 421802

www.master-builders-solutions.com/it-it

e-mail: infomac@masterbuilders.com