

RECOVER ® DP

Concrete Wash Water System

Product Description

RECOVER® DP Wash Water System is primarily designed to eliminate truck wash-out and significantly reducing the environmental pollution when discharging large amounts of highly alkaline waste into the drainage system and disposing of solid waste to landfill sites, also conserving resources by reducing the amount of water required and recycling the solid materials.

RECOVER® DP will stabilise the hydration of all cement components by the formation of a protective barrier around cement particles. This enables the setting of the cement to be controlled over extended periods.

RECOVER® DP is formulated from selected raw materials and is manufactured and tested under controlled conditions to give a consistent product.

RECOVER® DP when used to stabilise the cement and then subsequently incorporated into delivered concrete is not considered as an admixture as defined in EN- 934-2.

Advantages

- RECOVER® DP is dosage tolerant so that all nominally empty trucks can be treated with a fixed dosage of one sachet per truck per night
- Retardation of residues over a weekend is achieved by treating the nominally empty truck with a dosage of two sachets per truck
- Nominally empty trucks which become idle during normal operation in the day can be treated and left until they are required
- No retardation of fresh batched concrete occurs when used at recommended dosage levels
- Reduced truck cleaning times and cleaner drums
- Saves on water usage and reduced waste costs
- Advantages to Health and Safety
- Reduced environmental pollution

Compatibility

RECOVER® DP can be used with all types of cement, including limestone cement. It is also effective in concrete containing fly ash or ground granulated blastfurnace slag. For use with special cements we recommend that you consult GCP.

RECOVER® DP should not be premixed with other admixtures, the performance of the material may be affected by the presence of other chemicals and we would recommend that GCP be consulted in such circumstances.



Typical Properties

Appearance	White Powder
Alkali Content (eq.Na ₂ O)	5.50%
Chloride Content	Nil
Air Entrainment	Nil

Method of use

RECOVER® DP is supplied ready for use.

A standard dosage is added directly to the nominally empty truck, which is essentially empty, except for residue of cement slurry, wash water adhering to inside of drum] usually at the end of the working day. 200 litres of water should be added together with 2 tonne of coarse aggregate. (150 litres of water, with 1 tonne if 3m³ trucks or smaller). This will assist in cleaning the inside of the drum.

The contents of the drum are then mixed at high speed for at least 2 minutes to ensure homogeneous dispersion in order to give controlled stabilisation. The drum should then be put into discharge and stopped with the materials at the top of the mixer drum, just before discharging, to allow the stone, water and RECOVER® DP to clean the blades.

It would be beneficial to wash the outer side of the back blade, to prevent build up of hardened concrete on the surface, as this is unlikely to come into contact with the mix containing RECOVER® DP. The truck is then allowed to stand idle, overnight or the weekend, depending on dosage, without the need to discharge any waste or wash-out water.

The following day's fresh batched concrete should be produced in the normal way; it should preferably be a full load. If this is an incomplete load then a slight degree of set retardation is possible. This may be important when producing concrete for specific applications, for example flooring, where retardation of setting time is undesirable.

Part Load Options

Addition Rates

Range	Standard 1 or 2* sachets per truck. Related to nominal or weekend* usage
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

If a part load is used for the following day's first batch, on top of the overnight stabilised mix, then the minimum batch sizes and cement contents should be followed:

200 - 299 kg/m³ cement content CEM I concrete – 4m³

300 - 399 kg/m³ cement content CEM I concrete – 3m³

> 400 kg/m³ cement content CEM I concrete – 2m³



This will be the same for mixes containing a proportion of cement replacement materials such as CEM II/A-LL, CEM III/A (35-65% ggbs) or CEM II/B-V (21-35% fly ash).

It must be ensured that batch weights are adjusted to account for materials that are already in the drum (i.e. water & aggregates).

Further Addition Rates

1 sachet per truck (6m³ truck):

Nominally empty trucks to stand overnight without wash-out.

2 sachets per truck (6m³ truck):

Nominally empty trucks to stand over a weekend without wash-out.

Trucks with a volume capacity greater than 6m³ please contact GCP.

Residual / Returned concrete.

1 sachet for trucks containing 0.00 to 0.25 m³ residual concrete with a total cement content less than 350 kg/m³ per night is sufficient.

2 sachets for trucks containing 0.00 to 0.25 m³ residual concrete with a total cement greater than 350 kg/m³ per night should be used.

3 sachets for trucks containing 0.25 to 0.50 m³ residual concrete with a total cement greater than 350 kg/m³ per night should be used.

Volumes of residual concrete above 0.50 m³ consult GCP.

Temperature effects on addition rates and/or for high cement content mixes.

If the ambient air temperature rises above 200C, coupled with a cement content above 375kg/m³, then the number of sachets should be doubled*.

*This is not necessary for blended mixes containing low-heat replacements such as fly ash or gqbs.

If a double dosage is used, then 6m³ volumes with a minimum 300 kg/m³ cement content must be added to the stabilised wash water for subsequent use.

Effects of Overdosing

If the stated recommendations are adhered to little or no retardation of the concrete will result. The effect of overdosing with RECOVER® DP will be dependent on the amount of overdose, temperature and type of cement or cement material used. It is probable that a noticeable retardation of set and slower strength gains will result. However the final strength will generally be higher than the corresponding plain non-retarded concrete mix.



Dispensing

RECOVER® DP needs no special dispensing equipment, added manually by hand into the truck.

Health and Safety

For further information on Health and Safety matters regarding this product we recommend that you consult the relevant Material Safety Data Sheet from GCP..

Packaging

RECOVER® DP is supplied in a water soluble clear sachet, protected within a plastic pail.

Storage

RECOVER® DP should be stored away from extremes of temperature and MUST be kept dry.

Storage Life in Manufacturer 's Drums:

12 months from date of manufacture.

Technical Service

Our Technical Service department of GCP Applied Technologies is available to assist you in the correct use of our performance chemicals.

gcpat.uk | United Kingdom customer service: +44 (0) 1925 855330 Fax: 01925 855350

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