



MasterSet DELVO 122 Waste Management System

Delivering a more efficient and
environmentally responsible business

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MasterSet DELVO 122 Waste Management System

MasterSet DELVO 122 enables zero waste, while its water-soluble packaging also means there are no environmental implications

Our MasterSet DELVO 122 Waste Management System has been designed to stabilise and delay the hydration of cement components for up to 72 hours. This allows the concrete adhering to the inner walls and blades of the mixer drum to be stabilised and then subsequently re-used, thus having a considerable impact on both a business's bottom-line and the environment.

When compared to conventional methods, the environmental benefits are significant, allowing the reduction, or even elimination, of mixer wash-out waste and costly maintenance intensive recycling plants along with reduced water consumption, whilst producing concrete with no detrimental strength characteristics.

At Master Builders Solutions we are fully committed to developing new products that provide both economic and efficient solutions, with environmental protection and social responsibility at the forefront of our thinking. The MasterSet DELVO 122 Waste Management System shows how we have turned ecological restraints into economic and environmental benefits.



Addition Guide

Use the number of bags indicated according to temperature and the cement content of the last load delivered.

Overnight – One Night			
Cement Content (kg/m ³)	Ambient Temperature		
	Up to 18°C	19°C - 28°C	29°C plus
0 – 375	1	1	2
380 – 480	1	2	3
485 plus	2	3	3

Saturday to Monday – Two Nights			
Cement Content (kg/m ³)	Ambient Temperature		
	Up to 18°C	19°C - 28°C	29°C plus
0 – 375	2	2	3
380 – 480	2	3	3
485 plus	3	3	3

Saturday to Tuesday - Three Nights			
Cement Content (kg/m ³)	Ambient Temperature		
	Up to 18°C	19°C - 28°C	29°C plus
0 – 375	3	3	**
380 – 480	3	3	**
485 plus	3	**	**

** Contact Master Builders Solutions Technical Helpline for advice.

TECHNICAL HELPLINE: Tel: +44 (0) 161 727 6313 (08:00 to 18:00 - Monday to Friday)



Truck Wash Procedure

Normal truck-wash procedure

After the last delivery of the day, ensure that the drum is as clean as possible prior to leaving the site for the plant. Pay particular attention to the area and blades at the exit end of the drum as the MasterSet DELVO 122 will not cover this area.

Procedure - No concrete remaining in drum

- 1) Add 200 litres of water to the “dirty” drum.
- 2) Add MasterSet DELVO 122 as per the Addition Guide. Adjust for low consistence concrete or pan mixer wash-out as appropriate.
- 3) Add coarse aggregate: - 1 tonne for 3.0m³ trucks - 2 tonne for 3.5 - 8.0m³ trucks
- 4) Turn the drum in high-speed mix for at least 2 minutes.
- 5) Travel the “Water/Aggregate/MasterSet DELVO 122 mixture” up and down the drum 5 times.
- 6) Turn the drum in high-speed mix for at least 1 minute.
- 7) STOP the drum with the materials at the top, just before discharging, and leave the drum in this position overnight.

Next day or when truck mixer is next required

The next load must contain at least 300kg of CEM I (or 330kg CEM II/A-L (L)). The total batch weights should be adjusted to account for the water and aggregate used in the “Truck-wash” operation, the concrete will then perform as “normal”.

For stabilisation of greater than 1 day please refer to the MasterSet DELVO 122 Addition Guide.

If any un-set concrete is remaining in the mixer drum please seek additional guidance before applying this procedure. If recycled water is to be used as a whole, or part of, the 200 litres of added water, we strongly recommend that a small evaluation trial is performed before implementation.

For trucks with mixer drums of greater than 8.0m³ or less than 3.0m³ capacity, please contact your local Master Builders Solutions representative for guidance.





Truck Wash Procedure

Modification for low consistence concrete

- » If the last load, or a high proportion of use during the day, has been low consistence concrete (25mm slump or less), pay particular attention to the final on-site wash-out of the day to ensure that the drum is as clean as possible. The quantity of MasterSet DELVO 122 to be used for the truck should be increased by 1 bag over that selected from the MasterSet DELVO 122 Addition Guide.
- » It is strongly recommended that the period of in-truck mixing and travelling the concrete up and down the drum be doubled from the existing 2 minutes and 5 times.
- » The final mix phase of the operation should also be increased to 2 minutes.

Modification for cleaning out central mixers in wet batch plants

- » Add the water and aggregates to the plant mixer along with the correct dosage of MasterSet DELVO 122 selected from the MasterSet DELVO 122 Addition Guide using the relevant last load and temperature information. If the mixer is smaller than 1.0m³ then scale the aggregates and water down accordingly but not less than 1 tonne of aggregates and 100 litres of water.
- » Mix thoroughly for at least 3 minutes and then discharge into the truck mixer being used. If the weight of aggregate and quantity of water has been reduced due to mixer size any shortfall must be added to bring the aggregate back to 2 tonnes and 200 litres of water.
- » Add the correct amount of MasterSet DELVO 122 required by the MasterSet DELVO 122 Addition Guide for the truck mixer depending on last load, temperature and the number of days the stabilisation is required for.
- » Continue with the conventional truck wash instructions.

Modification required for workday stabilisation

Procedure - No concrete remaining in drum

- » Add at least 100 litres of water (150 litres preferred).
- » Add 1 bag of MasterSet DELVO 122.
- » Use the same mixing process as for overnight wash water stabilisation (exclude the aggregate addition).
- » At time of next loading, reduce the amount of mix water to be added by the quantity used in the stabilisation process. (Ensure that the load contains at least 300kg of CEM I).
- » If, after stabilisation, the truck is not used again that day, but was treated less than 4 hours previously, then continue to stabilise as per the MasterSet DELVO 122 Overnight Wash Water Stabilisation Instructions by adding the stone but allowing for the 1 bag of MasterSet DELVO 122 and water that has already been added to the drum.
- » If the truck has been unused for more than 4 hours before the final end-of-day washout, then the 1 bag of MasterSet DELVO 122 should be considered to be used and the full MasterSet DELVO 122 dosage rate as per the MasterSet DELVO 122 Addition Guide should be applied.
- » In either situation if the aggregate and/or water contents in the truck are lower than required please adjust accordingly prior to completing the final stabilisation procedure.



Application Table

Use the number of bags indicated below for extending the workability life of concrete between 16°C to 21°C

* 4 hours of Workability	250kg/m ³ CEM I	300kg/m ³ CEM I	350kg/m ³ CEM I	400kg/m ³ CEM I
2.0m ³	3	3	3	6
3.0m ³	3	6	6	6
4.0m ³	6	6	6	9
5.0m ³	6	9	9	9
6.0m ³	9	9	12	12
7.0m ³	9	12	12	15
8.0m ³	12	12	15	18

* 5 hours of Workability	250kg/m ³ CEM I	300kg/m ³ CEM I	350kg/m ³ CEM I	400kg/m ³ CEM I
2.0m ³	6	6	6	6
3.0m ³	6	9	9	9
4.0m ³	9	9	12	15
5.0m ³	12	12	15	18
6.0m ³	12	15	18	21
7.0m ³	15	18	21	24
8.0m ³	18	21	24	27

PROCEDURES

Ensure the load is fully mixed at the required consistence (75mm or greater).

1. Select the section that relates to your CEM I content per cubic metre.
2. Select the total workability life required. For example, 4 hours or 5 hours.
3. Move along the volume (m³) to be treated.
4. This will give the number of bags of MasterSet DELVO 122 for the load.
5. Add the correct number of bags and mix for at least 5 minutes.



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