MAPEI

CE
EN 934-5
Tab. 2

Re-Con Zero

Two-component powder product used to completely recover returned concrete from mixer trucks

DESCRIPTION
Re-Con Zero is a two-component powder product used to recover all “returned concrete” with **Zero** impact on the environment and **Zero** investment required for treatment plants.

WHERE TO USE
Recovering all types of concrete returned to mixing plants (including concrete for shotcrete) at the end of each day or when sites are decommissioned.

TECHNICAL CHARACTERISTICS
Re-Con Zero is a two-component powder product made from special polymers and inorganic composites according to a formula developed in the MAPEI research laboratories which allows concrete returned to mixing plants to be completely and quickly recovered directly from mixer trucks.

Re-Con Zero transforms returned concrete into an aggregate that, once cured, may be used as follows:

- to partially replace natural aggregates for normal concrete;
- to completely replace natural aggregates for lean concrete, substrates, mixed cements, etc.

Treating concrete with **Re-Con Zero** does not generate waste or by-products, such as rinsing water or fines, because the process allows the cementitious conglomerate to be completely recovered. After treating concrete with **Re-Con Zero**, the inside of the mixing drum is extremely clean and considerably less rinsing water is required compared with the amount normally used for cleaning mixing drums at the end of the day.

HOW TO USE
There are two different methods for using **Re-Con Zero** according to specific site conditions and the raw materials used (type of cement, aggregates, etc.).
The correct procedure should be chosen after carrying out preliminary tests.
Returned concrete should preferably be consistency class S4 or S5 according to EN 206-1 (160-240 mm).

Method 1
Tip the concrete towards the mouth of the drum and add **Re-Con Zero Component A** at a rate of one 0.5 kg bag per cubic metre of concrete to be treated.

Note: make sure the bags drop onto the concrete and not onto the sides of the drum.
Mix at high speed (15 rpm) for 2 to 3 minutes.

If necessary, a 0.5 kg bag of **Re-Con Zero Booster** per cubic metre of concrete may be added to improve granulation of the conglomerate.

Repeat the procedure by adding **Re-Con Zero Component B** at a rate of six 1 kg bags per cubic metre of concrete to be treated and mix at a medium speed for 2 minutes.

Method 2
Tip the concrete towards the mouth of the drum and

Re-Con Zero

TECHNICAL DATA (typical values)

PRODUCT IDENTITY		
	Component A/Booster	**Component B**
Appearance:	powder	powder
Colour:	white	white
Bulk density (g/cm³):	0.8	1.1
Alkali content (%):	≤ 1	≤ 1
Chlorides:	≤ 0.1	≤ 0.1
Main action:	water absorber/viscosifier	setting accelerator
Classification according to EN 934-5:	tab. 2	

add **Re-Con Zero Component B** into the drum at a rate of six 1 kg bags per cubic metre of concrete to be treated.

Note: make sure the bags drop onto the concrete and not onto the sides of the drum.

Mix at high speed (15 rpm) for 3 minutes. Repeat the procedure by adding **Re-Con Zero Component A** at a rate of one 0.5 kg bag per cubic metre of concrete to be treated. Mix at high speed (15 rpm) for 3 to 5 minutes. If necessary, a 0.5 kg bag of **Re-Con Zero Booster** per cubic metre of concrete may be added to improve granulation of the conglomerate.

Re-Con Zero Component A and **Re-Con Zero Component B** must never be mixed together; always add them to the concrete in the mixing drum in sequence.
Once the concrete has been granulated, stop mixing. After treating the concrete, pour the aggregate from the mixing drum onto the ground and spread it over as wide an area as possible without forming heaps or piles. Approximate handling times of the aggregate according to the surrounding temperature is shown in the graph (fig. 1).

RECOMMENDATIONS

- The bags used for the packaging of **Re-Con Zero Component A**, **Re-Con Zero Component B** and **Re-Con Zero Booster** are water-soluble and must be protected from moisture and damp.

- **Re-Con Zero Component A** and **Re-Con Zero Component B** must never be mixed together; always add them to the concrete in the mixing drum in sequence.

- The treated material must be moved and handled with a mechanical loading shovel (or other suitable means) within the times indicated in graph 1.

CONSUMPTION

Re-Con Zero Component A: one 0.5 kg bag per cubic metre of concrete to be treated.

Re-Con Zero Component B: six 1 kg bags per cubic metre of concrete to be treated.

Re-Con Zero Booster: one 0.5 kg bag per cubic metre of concrete to be treated.

The recommended dose may be optimised by carrying out specific tests on site and with the assistance of our MAPEI technicians.

PACKAGING

Complete kit to treat 1 cubic metre of concrete comprising:

- **Re-Con Zero Component A**: one 0.5 kg water-soluble bag.

- **Re-Con Zero Component B**: six 1 kg water-soluble bags.

Re-Con Zero Booster is available in boxes containing thirty 0.5 kg water-soluble bags.

STORAGE

24 months in a dry area in its original, unopened packaging.

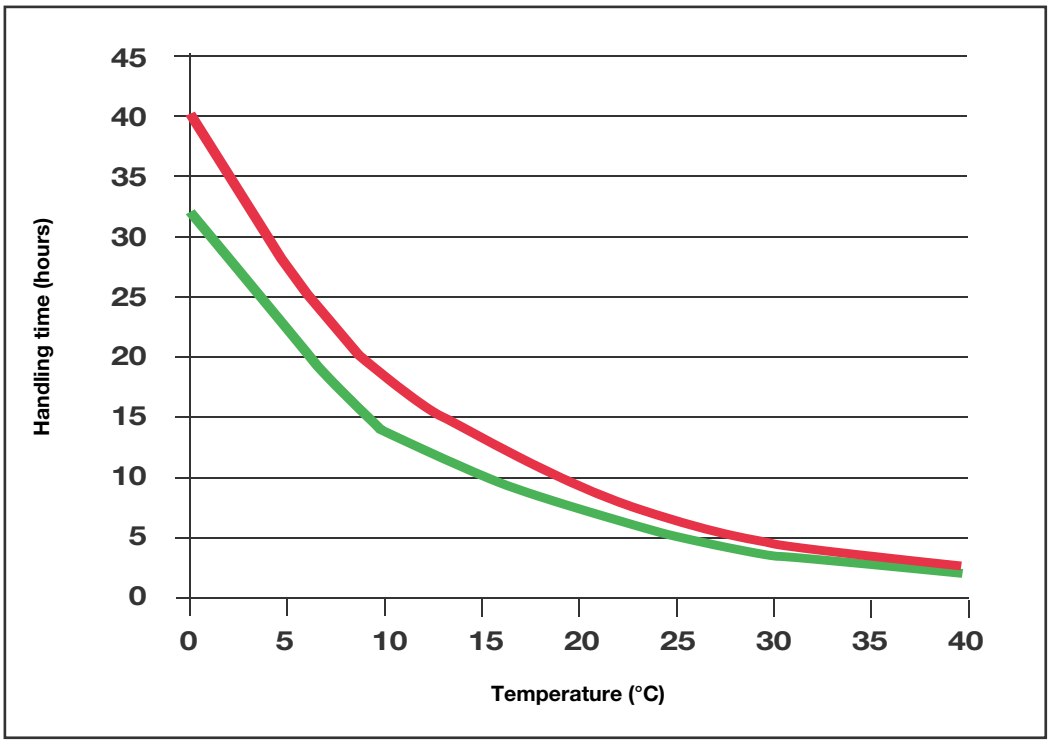

Fig.1 - Optimum handling time according to surrounding temperature

SAFETY INSTRUCTIONS FOR PREPARATION AND USE

Re-Con Zero Component A and **Re-Con Zero Booster** are not considered hazardous according to current norms and regulations regarding the classification of mixtures.
Re-Con Zero Component B is an irritant and may cause serious damage to eyes.
We recommend using protective gloves and goggles. If it comes into contact with the eyes, wash well with plenty of clean water and seek medical attention.
If **Re-Con Zero Component A** or **Re-Con Zero Booster** are accidentally spilt, the water solution and powder make surfaces extremely slippery.
For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

All relevant references for the product are available upon request and from www.mapei.com

Re-Con Zero

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