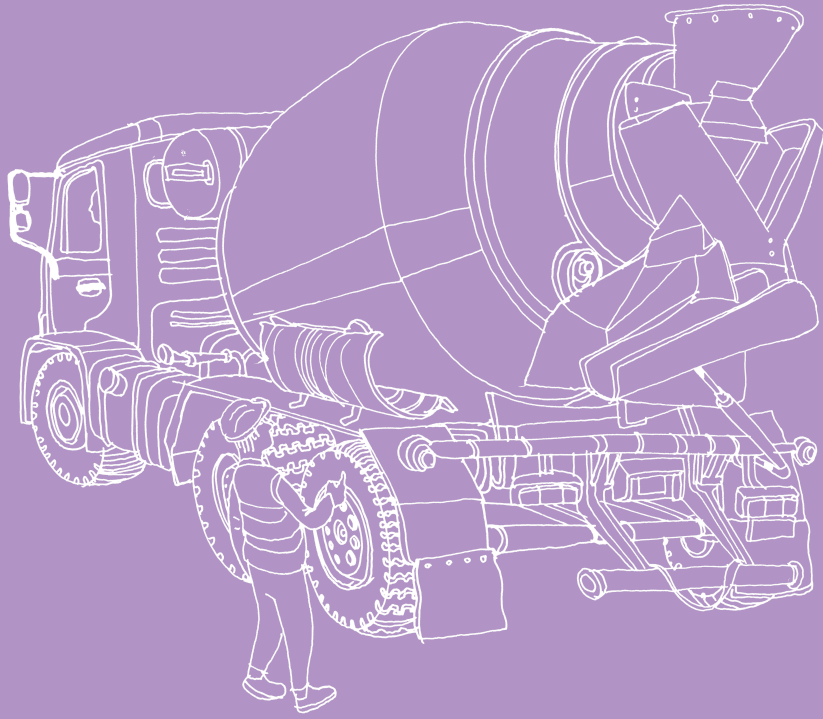


RE-CON ZERO

RE-CON ZERO EVO

Returned Concrete  
with Zero Impact



# THE INNOVATIVE PRODUCT FOR THE SUSTAINABLE RECOVERY OF RETURNED CONCRETE



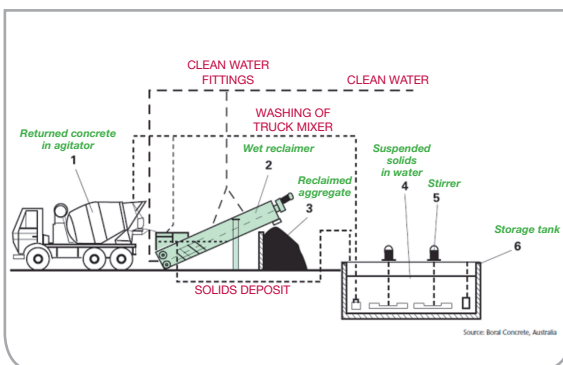
The global production of concrete amounts to a total of **10 billion m<sup>3</sup>/year**.

Out of this total, approximately **50 million m<sup>3</sup>** of concrete is never actually used and is returned to the production plant. Considering just 10% of this total as “critical”, meaning not recyclable while fresh, this translates into **5 million m<sup>3</sup>** of returned concrete requiring treatment every year.



Returned concrete has a high environmental impact on concrete plants and leads to extra operating costs.

Current systems for treating returned concrete do not offer a sustainable solution in that they:



- 1 Have a negative impact on the environment
- 2 Do not make the best use of potentially recyclable material
- 3 Increase overall operating costs

**RE-CON ZERO** and **RE-CON ZERO EVO** are solutions to these problems, making the most of returned concrete by transforming it into granular material that can be re-used as aggregate in concrete.

- **No waste produced**
- **Added directly into the truck mixer**
- **No treatment plants required**



GREEN INNOVATION

# THE PYRAMID OF SUSTAINABILITY

The pursuit of sustainable development depends on our capacity to guarantee the total interconnection between the **economy**, **society** and the **environment**. These three elements must never be considered as single, independent entities, but rather analysed within a systemic framework as elements which, together, contribute to the achievement of a common goal. This means that every programmed intervention must take all reciprocal inter-relations into consideration. If a programmed intervention focuses on only one or two of these aspects, a condition of sustainability will not be achieved. In view of these considerations, it would be preferable to represent the sustainability of development as three concentric circles, highlighting how **the economy exists within a society, and how both exist within the environment**. And from this consideration, it is possible to construct a **pyramid of sustainability**, with the environment forming the base which, through its supply of natural resources, services the ecosystem and wellbeing of society and plays a fundamental support role for the economy and society. And with this in mind, the advantages deriving from the use of **RE-CON ZERØ** and **RE-CON ZERØ EVO** may be summarised as follows:

## ENVIRONMENTAL ADVANTAGES:

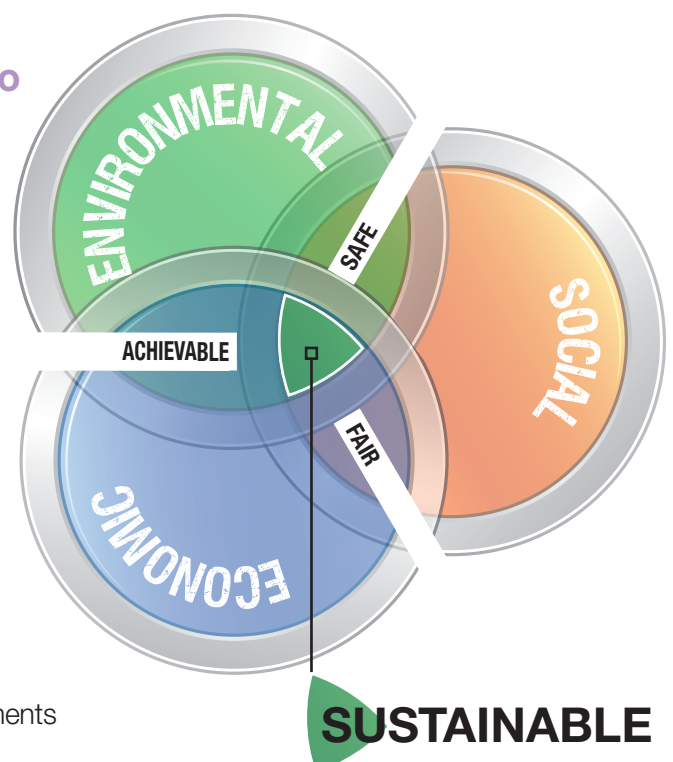
- With **RE-CON ZERØ** and **RE-CON ZERØ EVO**, returned concrete may be completely re-utilised, thus reducing the amount of waste material to be disposed of.
- With **RE-CON ZERØ** and **RE-CON ZERØ EVO**, the amount of recycled material employed increases, thus reducing the impact caused by the extraction and processing of virgin materials.
- With **RE-CON ZERØ** and **RE-CON ZERØ EVO**, the amount of materials transported by road decreases, due to the fact that part of the aggregates are produced at concrete plants.

## SOCIAL ADVANTAGES:

- Its ease of use and absence of hazardous, toxic and carcinogenic substances contained in **RE-CON ZERØ** and **RE-CON ZERØ EVO** all contribute to improving the health and safety in the work environment.

## ECONOMIC ADVANTAGES:

- The use of **RE-CON ZERØ** and **RE-CON ZERØ EVO** transforms one cubic metre of returned concrete into more than two tonnes of quality aggregate.
- The use of **RE-CON ZERØ** and **RE-CON ZERØ EVO** saves disposal costs for returned concrete and considerably reduces the amount of sludge created during washing cycles.
- The use of **RE-CON ZERØ** and **RE-CON ZERØ EVO** allows all returned concrete to be recycled without costly investments into machinery or equipment.



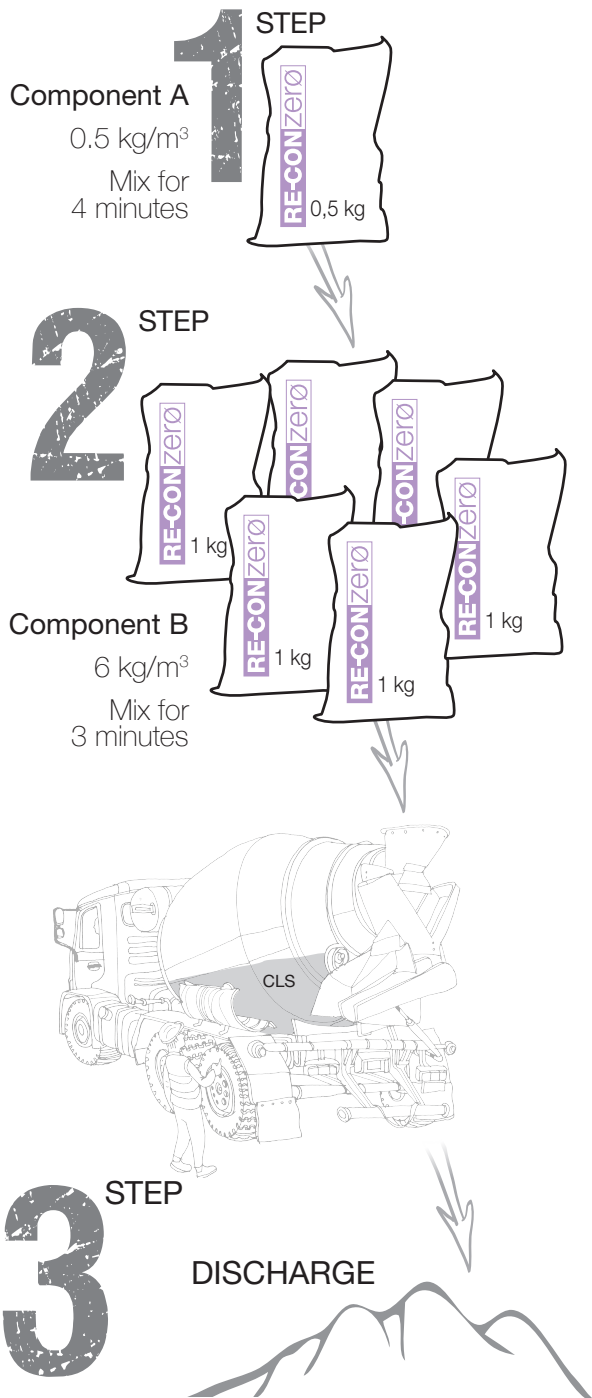
# RE-CONzerø

# RE-CONzerøEVO

## Returned Concrete with Zero Impact

### SUSTAINABLE RECOVERY OF RETURNED CONCRETE

RE-CONzerø

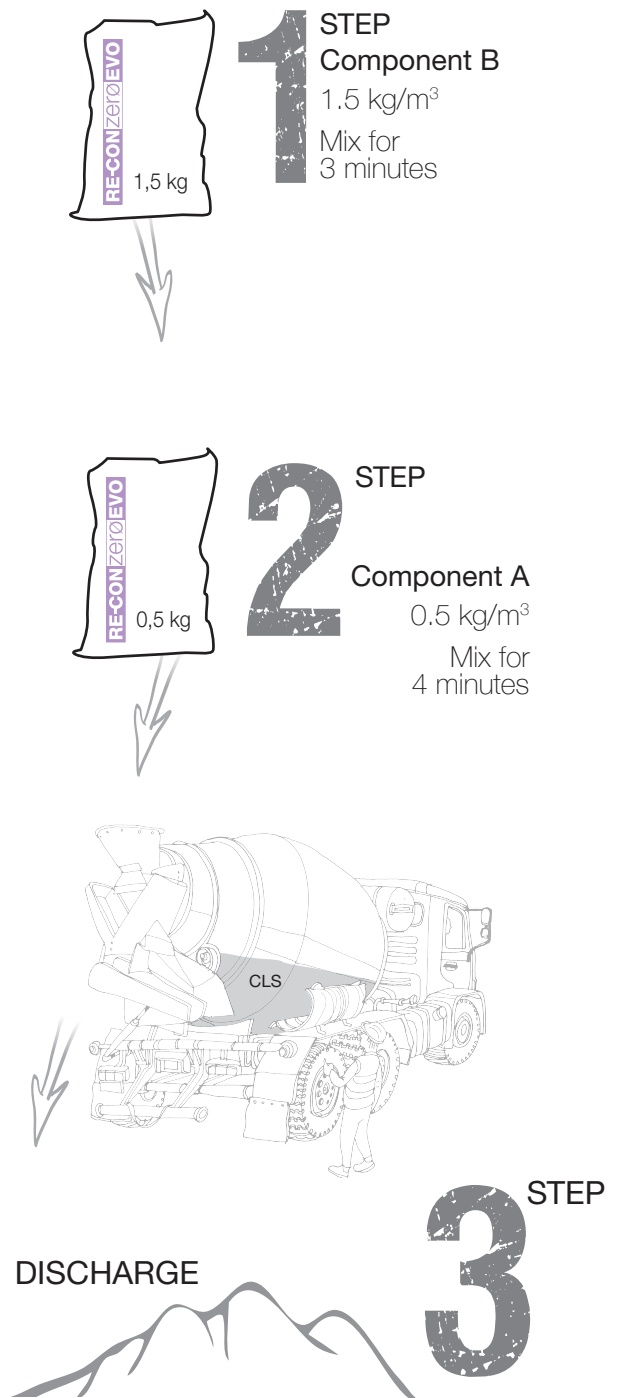


Complete kit to treat 1 cubic metre of returned concrete:

RE-CON ZERØ Component A: 1x0.5 kg water-soluble bag

RE-CON ZERØ Component B: 6x1 kg water-soluble bags

RE-CONzerøEVO

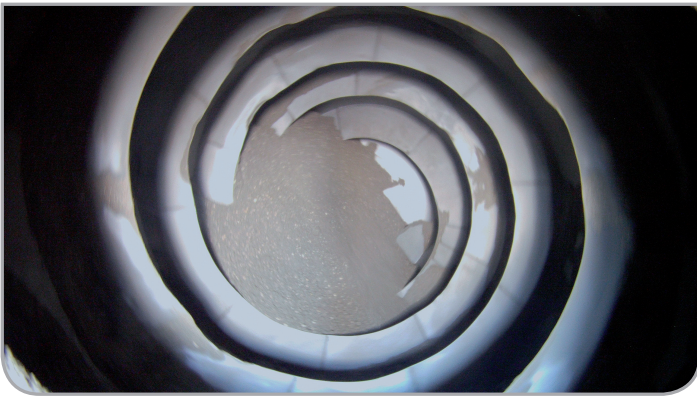


Complete kit to treat 1 cubic metre of returned concrete:

RE-CON ZERØ EVO Component B: 1x1.5 kg water-soluble bags

RE-CON ZERØ EVO Component A: 1x0.5 kg water-soluble bags

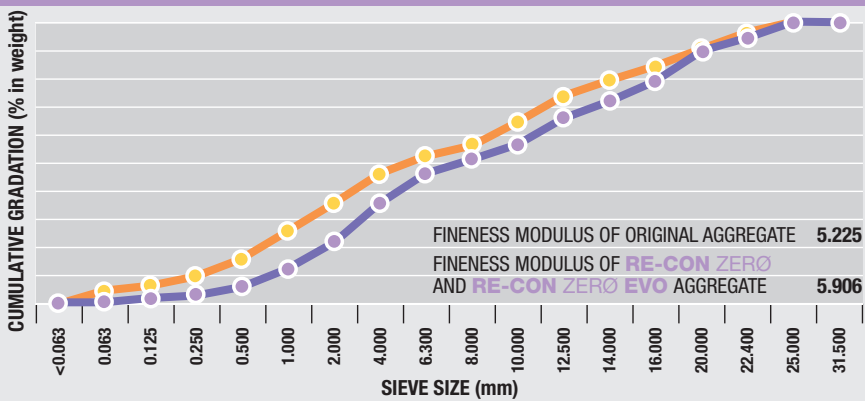




After mixing for a few minutes with **RE-CON ZERO** or **RE-CON ZERO EVO**, concrete is transformed into granular material which may be discharged on the ground and, once cured, used as aggregate in concrete. **RE-CON ZERO** or **RE-CON ZERO EVO** work with all types of concrete.

After discharging the material, the mixing drum is left clean. The **cleaning water** for the mixer drum **may be completely recycled** and used again for mixing.

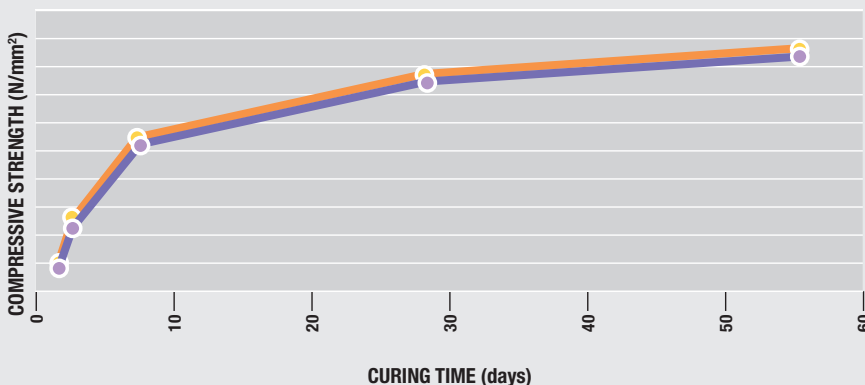
## CUMULATIVE FREQUENCY OF AGGREGATE DISTRIBUTION



**RE-CON ZERO** and **RE-CON ZERO EVO** aggregates meet the requirements of EN 12620:2008 "Aggregates for concrete".

- Original aggregates
- **RE-CON ZERO** and **RE-CON ZERO EVO** aggregates

## DEVELOPMENT OF $f'_c$ - CONCRETE WITH COARSE AGGREGATES SUBSTITUTED WITH **RE-CON ZERO** E **RE-CON ZERO EVO**



**RE-CON ZERO** and **RE-CON ZERO EVO** aggregates may be used to achieve parity performance. Your Mapei representative will work through the process of substitution with you.

- Original aggregates
- **RE-CON ZERO** and **RE-CON ZERO EVO** aggregates

**HEADQUARTERS**

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