Bowers & Son Ltd
Concrete Manufacturers TE AWAMUTU

DURACRETE CONCRETE RAIN WATER STORAGE TANKS

First Usage Notes - November 2016

Concrete rain water tanks are one of the best, most robust and oldest systems for storing water, being a vessel that is strong, cool & dark. These features generate the best conditions to store rain water whilst helping to prevent algae growth and being stable in most environmental conditions above or below ground.

Our rainwater tanks are purpose built storage vessels manufactured with the high specification materials featuring a special low alkali cement.

Our ready-mixed plants used to supply the special Self Compacting Concrete are independently certified and regularly monitored for both process control and adherence to certification.

Concrete by its nature is an organic product reflecting both the materials used for manufacture and the installation environment. Variation should be expected with the first batches of water taken from a new tank and initially stored water may have a higher than normal pH i.e. high alkalinity. Over time pH stabilises but time taken varies greatly.

Some of the more common but not all of the factors influencing water quality are listed below.

** Water first used to prime the tank either being "town supply" which is targeted to be a neutral range pH ~7.0/7.5 or rainwater form a roof catchment which is naturally acidic pH ~5.5/6.5.*

** Length of time water has been sitting in the tank before use.*

** Your daily usage of water, typically one person uses between 200-300L of water / day.*

** Number of tanks linked together i.e. quantity of water held.*

** Type and size of connections between tanks e.g. balance pipes (at bottom) and over-flows (at top).*

** Flow characteristics of water in a tank or between multiple tanks. Does water circulate?*

** Overflows pipes which encourage older water to be drawn from the bottom of the tank using an internal dropper which also helps with water circulation.*

** Use of a floating water intake which allows water to be taken from the upper level of your water tank*

** Inlet pipe type either "wet" (typically pipes buried in ground) meaning water maybe held in pipes for extended periods of time. Or a "dry" system where water flows into tank (typically overhead pipes) meaning all water empties from pipes.*

** Tanks should use an inlet diversion system which will divert a small quantity of new rain water before it enters the tank helping to clean inlet pipes (First Flush) or an actual filter (Rain Catcher).*

** In-house filtration system is very important and often mandatory. Typical set-up is a 20 micron coarse filter & then 1 micron fine filter cartridge linked to a UV filter. An activated carbon filter may also be included.*

** Many other factors can also influence changes in tank water quality including pollution from industrial, agricultural, domestic & environmental sources.*

** Please also note that rain water that is captured from a roof water catchment & held in tanks will taste different to other sources of water e.g. bottled or town supply.*

When water is held statically (still) in any type of storage vessel for varying periods of time there will be changes to this water. These changes we cannot predict and therefore cannot offer any guarantee with regards to the properties of water stored. We do believe that the best available water storage is a concrete rain water tank which is best suited to offset the natural acidity of rainwater being a cool, dark, strong & robust vessel.

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