

Duracrete Concrete Water Tanks

Frequently Asked Questions

January 2016



Based on our experience, to achieve the best possible water quality as quickly as possible from a new concrete water tank we suggest the following points be noted.

FAQ's

- 1) Duracrete water tanks are manufactured using the best quality locally produced raw materials along with some imported products such as steel fibres.
- 2) Tanks are vacuum cleaned before leaving our factory to remove all construction dust etc.
- 3) Concrete by nature is an alkaline material with pH >7.0 therefore new concrete tanks will have an initial pH above >7.0 that reduces with time & usage.
- 4) The pH scale is used to measure whether a substance is an acid or alkali (base). Substances below <7.0 are Acidic, Neutral being =7.0, Alkaline are above >7.0.
- 5) Any measurement of pH must be read in conjunction with a full water analysis to be accurate.
- 6) Rainwater reacts with carbon dioxide, nitrogen and other substances in the atmosphere therefore becoming acidic. Typical range = pH 5.5 to 6.5
- 7) Alkaline concrete works to offset the acidic nature of rainwater.
- 8) Water in new tank takes time to reach a typical pH range for concrete water tanks and this time varies greatly between individual installations. Please see below.
- 9) Water supplied from a "Town Supply" source has a target range of pH 7.0 to 7.5
- 10) New concrete tanks will smell of concrete particularly as the space is enclosed. Smell will reduce with time which is typical for most newly manufactured products.

Suggestions for best installation of Duracrete water tanks.

- a) Ensure tanks have good internal flow characteristics. Acidic rainwater must be allowed to flush through the tank as soon as possible offsetting any alkaline tendency as it replaces the town supplied water therefore higher water usage is beneficial in this case.
- b) Prime tanks with a small amount of town supply water to ensure tanks are held in ground but do not over fill. Town supply has chemicals added for various reasons e.g. to sanitise or control pH levels which may lengthen the time it takes for the tank to achieve a typical pH.
- c) Overflow outlet from a tank should have an internal dropper that finishes about 300mm above tank floor with a small diameter hole drilled at the top of this dropper to prevent siphoning. Droppers help with water circulation removing older water from the tank bottom.
- d) All tanks should have individual overflows with internal droppers as above.
- e) Tubes / pipes connecting individual tanks should be as large as possible to encourage flow between tanks. We recommend a 40 or 50mm pipe is used. Bigger is better!
- f) If using a submersible pump located in the tank ensure a floating intake is used to draw water from the fresher upper most layers of water.
- g) Vent Tank by encouraging air flow to eliminate any residual concrete smell, by partially opening lids, loosen bolts, and then raise lids with spacers of wood or similar. For safety do not leave tank lids off! You may also wish to temporarily remove the safety vent if fitted (semi buried or above ground tanks only) to help with air flow.
- h) To speed the movement towards a typical water tank pH range (pH 7.5 to 8.5) a gradual dosing of the tank with either "Citric or Acetic" acid can be beneficial. Treatment may also require use of a water conditioner such as Davey AquaSafe or a similar product.

N.B. Please refer to individual data sheets for our water tank specifications and general installation recommendations.



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