

Brac Systems Technical Advisory #002

Water quality issues

Background:

Water used in bathing and laundry that collects in the holding tank of the Brac System is considered “grey” water. Most plumbing codes consider grey water that is left untreated to be “black” water, or sewage, after a period of 24 hours. For safety reasons, the greywater in the Brac System must be treated so that it remains grey water.

While the Brac System filter captures all particulate matter, the mechanics of the system do not “treat” the water, per se. The water requires chemical treatment in order to keep bacteria and odors in check.

There are also visual quality issues of the water to consider. Soap and detergents will remain in the water, giving a cloudy appearance, known as turbidity, to the water in your toilet bowl. There are a number of additional chemicals that would clear up the turbidity, but these various chemicals also leave behind significant amounts of sludge in the bottom of the holding tank, requiring frequent flushing out of the Brac System. The application of such chemicals would also greatly complicate the mechanics of the Brac System, increasing the price of the system significantly.

Solutions:

Bacterial treatment: We are strongly recommending that users add a chlorine-based tablet to their holding tank several times a year. The Lysol Brand Continuous Action Toilet Cleaning Tablet is a readily available option. It is part chlorine, and part bromine, and at 100g, will last up to two months. A more economical investment is the tri-chlor tablets that are available in bulk at pool supply stores. These come in 7 kilo buckets (and larger), with each tablet weighing 200g, and we have found them to last two months or more. We estimate that a 7 kilo bucket of tablets will last approximately nine years when used in the Brac System. To add the tablets to your system, simply open the top of the Brac System, unscrew the cap of the filter housing, remove the filter, and drop the tablet into the housing so that it falls into the bottom of the tank. Replace the filter, cap and lid. Your toilet water will have an odor of chlorinated pool water, and when this odor goes away, you will know that it is time to replace the tablet.

Turbidity: Rather than add to the number of chemicals, maintenance cycles, and cost of the system, we feel that the best way to deal with turbidity is to mask it with dye. Inexpensive blue dye tablets can be purchased at any supermarket, and many include a fragrance. Simply drop a tablet into the tank of each toilet, as the tablet instructions indicate. The dye will greatly improve the visual appeal of the water in your toilet bowl.

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