



Berkey PF-4™ Reduction Elements

Berkey PF-4™ reduction elements are designed for use in conjunction with **Berkey®** water filter elements for the “adsorption” of the following four unwanted elements most commonly found in drinking water. These post filter elements can also be used with other gravity fed ceramic water filter elements that utilize a standard 5/8 inch NPT outlet thread.

- MTBE (Methyl-tertiary-butyl-ether)
- Fluoride
- Lead
- Arsenic

Berkey PF-4™ filters are also designed to “adsorb”:

- DBCP (Dibromo-chloro-propane)
- THM's (trihalomethanes)
- Herbicides & Pesticides
- Heavy Metal ions

INSTALLATION OVERVIEW:

Assemble the water filter as per the water filter assembly instruction. Prime elements (see instructions on reverse side). On the underside of the upper chamber locate the stem of each filter element (*do not remove the wing nut holding the filter element in place*). With clean hands, remove blue caps and screw a **Berkey PF-4™** filter onto each filter stem (*the blue arrow should point away from upper chamber*) giving **five full revolutions**. **Do not screw more than five revolutions as this may damage the internal media screen**. When complete, seat upper chamber on top of the lower chamber. Fill upper reservoir. When the lower reservoir is full, discard the first batch of water, which may contain process dust. (Note: when lower chamber is full of water, the **Berkey PF-4™** filters will be immersed).

TECHNICAL INFORMATION:

MTBE: **Berkey PF-4™** elements are manufactured to exceed ANSI/NSF Standard 53 which requires that MTBE be reduced by at least two thirds from an influent rate (*water going in*) of 15ppb to an effluent rate (*water going out*) of less than 5ppb (> 95% reduction*). **LEAD:** Tests have shown that when 2000 gallon of influent water at a concentration of lead of 150-200 ppb pass through 200 grams of media at a flow rate of 1gpm, the lead level was reduced to less than 1ppb (>99% reduction). **FLUORIDE:** Testing for fluoride was based on 20-30ppm of the ion in the influent aqueous solution at a flow rate of no more than 3 gpm per cubic foot of media. Results of < 1ppm of the fluoride ion in the effluent were typical for the media (>95% reduction). Under optimum conditions, effluent concentrations of less than 50 ppb were readily achieved (>99.75% reduction).

REPLACEMENT:

Under normal conditions it is recommended that **Berkey PF-4™** elements be replaced at six-month intervals (*If water is heavily contaminated with MTBE, fluoride, lead or arsenic filters should be replaced in four-month intervals*)*. Note: do not boil this element.

**For maximum removal efficiency, maintain the water being treated between a PH level of 5 and 7. Actual capacity is dependent on the level of contamination of arsenic, fluoride and other competing heavy metal ions. Unusually high levels of these contaminants may reduce the capacity and efficiency of the elements.*

GENERAL WARRANTY INFORMATION

New Millennium Concepts, Ltd. warrants this product to be free from defects in materials and workmanship for a period of 6 months from date of purchase. New Millennium Concepts, Ltd. will replace or repair any product that it deems is not properly functioning during the stated warranty period. Relief under this warranty is limited to the replacement or repair of defective materials or workmanship only. New Millennium Concepts, Ltd. shall not be held liable for incidental or consequential damage to personal property from, but not limited to, a defective unit, improper use, abuse, accident, or neglect, etc. No warranty will apply to units which have been used for purposes not intended, which have been altered so as, in the manufacturer's judgment, to affect adversely its performance. This warranty is for the original retail purchaser only, and cannot be transferred. Repair or replacement of parts will be made upon delivery to manufacturer's plant or authorized service dealer at customer's expense. The laws of the State of Texas, USA, will govern any disputes regarding this warranty or claim made. This warranty which is given expressly in lieu of all warranties, expressed or implied, or merchantability and fitness for a particular purpose, constitutes the only warranty made by New Millennium Concepts, Ltd.

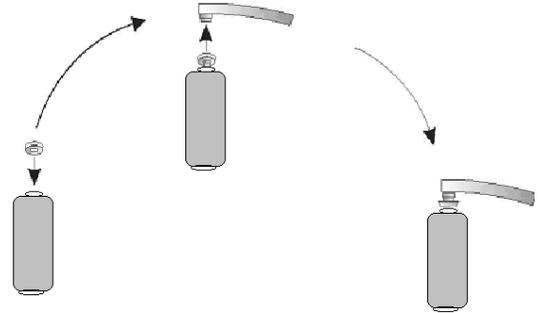
CAUTION:

FILTERS MUST BE PRIMED PRIOR TO USE. Do not install before reading installation procedures - Do not screw on the Berkey PF-4™ elements more than five revolutions.

PRIMING PROCEDURE

The media within your Berkey PF-4™ elements contains micro fine process dust that can cause the filtered water to have a bitter taste. To dislodge the process dust from the Berkey PF-4™ elements, it is necessary to prime each element. To prime your filters, use the following procedure:

- 1) With blue caps in place remove the stickers and wash the exterior of each Berkey PF-4™ element with mild dish soap.
- 2) With clean hands, remove both blue caps from each end of each Berkey PF-4™ filter element.
- 3) Place the rubber-priming button (tan colored) onto one end of a Berkey PF-4™ element and align the hole in the button with the hole in the Berkey PF-4™ element.
- 4) Press the priming button up against a sink faucet so that the priming button creates a seal between the faucet and the Berkey PF-4™ element.
- 5) While holding priming button against faucet, turn on the **COLD** water gently, allowing water to fill the cavity of the Berkey PF-4™ element and discharge from the opposite end. Allow water to discharge for at least 20 seconds or until water runs clear whichever is longer. *Hint: Place thumb on top of faucet to apply pressure and create a better seal.*
- 6) Turn the Berkey PF-4™ element the other direction and prime the other end repeating steps 3-5. The element has now been successfully primed.
- 7) Prime each additional Berkey PF-4™ element repeating steps 3-6.



INSTALLATION PROCEDURE

- 1) Remove upper chamber from filtration system, drain if needed then place upside down on a counter so that the stems of the ceramic filter elements are facing upward. Wash hands.
- 2) With the water flow-arrow pointing away from the upper chamber (the Berkey PF-4™ elements have threads on one end only) screw the Berkey PF-4™ elements onto the stems of each filter element **five full revolutions**. Notes: a) **Do not screw on more than five revolutions as this may damage the internal media screen.** b) *The flow arrow should point away from upper reservoir.*
- 3) Replace the upper reservoir onto the lower reservoir (the Berkey PF-4™ should now be hanging inside the lower reservoir). Fill the upper reservoir with water and let it drain into the lower reservoir. When the lower reservoir is full, discard the first batch of water, which may contain residual process dust. Your filtration system is now ready for use.

Notes:

- 1) Do not boil these elements.
- 2) The water temperature will rise during the priming process. Therefore use only COLD water to prime elements as the use of hot water may result in uncomfortable or unsafe water temperatures.
- 3) Berkey PF-4™ elements reduce filtration flow rate by 15-20%.
- 4) When lower reservoir is full of water, the Berkey PF-4™ filters will be immersed.
- 5) When water level in lower reservoir rises above the bottom of the Berkey PF-4™ elements, it is normal for small amounts of water to burp through threads connecting Berkey PF-4™ elements to the ceramic filtration elements.
- 6) If residual process dust is still visible after priming, repeat the priming and installation process as described above.
- 7) The lower reservoir in most gravity filtration systems has a two to three gallon capacity and a typical household uses about one refill per day. We recommend that the upper reservoir be filled at night. The water from upper reservoir should be filtered by morning. It is normal for the filtration process to slow down significantly when water level in lower reservoir rises above the bottom of the Berkey PF-4™ elements. Households requiring more water can speed up the flow rate by drawing off the filtered water into a water pitcher or other container when water level in lower reservoir rises above the bottom of the Berkey PF-4™ elements.
- 8) These post filter elements can also be used with other gravity fed ceramic water filter elements that utilize a standard 5/8 inch NPT outlet thread.

**For maximum removal efficiency, maintain the water being treated between a PH level of 5 and 7. Actual capacity is dependent on the level of contamination of arsenic, fluoride and other competing heavy metal ions. Unusually high levels of these contaminants may reduce the capacity and efficiency of the elements.*