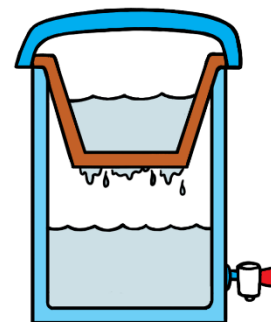


Ceramic Pot Filter

Source Protection	Safe Transportation	Sedimentation	Filtration	Disinfection	Safe Storage
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What is it?

Ceramic pot filters are made from porous fired clay pots nested within a plastic, metal, or ceramic container. The clay is often mixed or painted with colloidal silver to help inactivate pathogens. Water is poured into the ceramic pot and collected underneath in a container with a tap at the bottom. This system provides safe storage for the treated water.



Performance

Microbiological Effectiveness:

Parameter	Effectiveness
Bacteria	Effective (>90%)
Viruses	Somewhat Effective (>80%)
Protozoa	Very Effective (>99%)
Helminths	Very Effective*

*Assumption based on pathogen size

Other Parameters

Effective at removing turbidity and colour.

Source Water Requirements

Turbid water (>50 NTU) should be settled or strained before filtering.

Capacity

Flow rate of 0.3–2.5 L/hour. Typically can treat around 8 L at a time.

Lifespan

Up to five years—generally one to two years.

Ease of Use & Acceptability

Operation & Maintenance

The user pours water into the filter. Water slowly moves through the ceramic pot by gravity, and is collected in a safe storage container. Users can access treated drinking water through a tap. The lower container, tap, and lid need regular cleaning. The ceramic pot should be regularly cleaned with a cloth or soft brush, taking care not to touch the bottom of the pot to anything that could be contaminated.

Repair & Replacement

Ceramic pots should be replaced every one to two years, or sooner if visible cracks appear.

User Considerations & Preferences

Small cracks can form in the ceramic pot that are not visible but reduce treatment effectiveness. Users should replace the pots every one to two years or when they observe unexpected increases in flow rate, which could indicate cracks.

Feasibility

Availability

Ceramic pot filters are locally produced in many countries. A small factory or kiln and previous experience with ceramics is required for local production of ceramic pots. Other filter components (container, lid, taps) can usually be found and assembled locally. Free designs for a hydraulic press and kiln are available from Potters for Peace.

Cost

Varies, often around US\$15–30 for the whole filter; component replacements cost average US\$4/year.

Size & Weight

Varies, often around 30 cm wide by 50 cm tall.

More Information

Details and references: www.hwts.info/products-technologies/d25e3821/ceramic-pot-filter

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