

Facts on

Home water filters

Do I need a home water filter?

Almost certainly no. The water supplied by Hafren Dyfrdwy is of very high quality. A significant part of our investment programme has been spent on improving quality, taste and appearance even more. In very special circumstances some customers, such as those using home dialysis units, may need water purified to a higher standard than normal tap water, in which case your doctor or renal unit will advise you. For some people, it is a matter of taste and they feel that a filter will improve this. As a suggestion, if you are experiencing a chlorinous taste problem, try storing fresh tap water in a jug in your refrigerator.

The first steps

Hafren Dyfrdwy can provide detailed information about the quality of your supply. You can even get this information from our website at <https://www.hdcymru.co.uk/waterquality> by entering your postcode. If you still feel that a filter will improve the taste or appearance you need to be certain of:

- what you actually want to remove from the water (e.g. chlorine, nitrate, lead).
- whether the filter is capable of achieving this.
- whether the design of the unit could lead to water quality deterioration.

What types of filters are available?

Jug filters: Small portable units that fit on top of glass or plastic jugs. The filtered water should be kept in a refrigerator and like any other food used as soon as possible to prevent bacterial contamination.

Plumbed - in filters: Usually larger and much more expensive than jug filters. Some are permanently plumbed into the cold water supply pipe. Unless there is a separate tap they treat all the water, whether for drinking, washing up or any other purpose. Others can be attached to the cold water tap, but the supply can be diverted so that it does not pass through the filter. All types must be properly maintained and cartridges replaced regularly to avoid risk of bacteriological growths on the filter media, or release of chemicals into the filtered water as the cartridge becomes exhausted.

How do filters work?

Most contain some form of filter medium, including:

Activated carbon: This absorbs very small amounts of organic material, removes tastes and odours, and breaks down chlorine.

Ion exchange resins: These are synthetic resins which swap positively charged substances (e.g. metals) in the water for hydrogen ions (acidity). Some resins will swap negatively charged substances (e.g. mineral salts) for hydroxide ions (alkalinity).

Membrane: Some filters contain a membrane with very fine pores which prevent any minute particles passing through.

What problems can occur with water filters?

In some circumstances, filters can reduce levels of water quality. This should not happen with filters from reputable manufacturers, if used and maintained properly. The following problems can arise, particularly with some plumbed-in units:

Growth of bacteria: Unsuitable plastic materials and activated charcoal can contribute to bacterial growth, particularly if kept continually moist and warm. Some filters are impregnated with silver to

prevent this, but this does not always work very effectively and the silver in the filter can leach into the drinking water.

Release of chemicals from the filter medium: Both ion exchange resins and activated charcoal have a limited capacity to absorb trace substances. If that limit is passed, absorbed substances can be released in a more concentrated form into the filtered drinking water. Therefore, replace the filter cartridge regularly according to the manufacturer's instructions.

Corrosion of pipework: Some filter processes can make water more corrosive to pipe work (e.g. lead or copper). This is not a problem if water is used immediately after filtering, but it can cause difficulty if the filter is plumbed in near the stop tap.

Break-up of filter material: If mishandled, badly made or badly fitted, some filters can release filter material into the water.

Are there any approval systems for filters?

There are no legal requirements for filters to be approved by any independent body, although the water industry is pressing the Government to review the situation. The water industry does provide a voluntary testing scheme for all plumbed-in water fittings, including water filters. This is known as the "Water Regulations Advisory Scheme". However the approval only relates to the materials in the filter that come into contact with the water, and not the actual performance of the unit. Products with approved materials are listed in the "Water Fittings and Materials Directory", which should be available in libraries or from:

Water Regulation Advisory Scheme (WRAS)
Unit 13 Willow Road
Pen-y-Fan Industrial Estate
Crumlin
Gwent
NP11 4EG
Telephone: 0333 207 9030
www.wras.co.uk