Seven water-saving tips when buying dual-flush toilets

Dual-flush toilets enable people to choose either a large or small flush. When working well and used correctly, they deliver significant water savings and play an important role in ensuring we have enough water to meet our needs and those of the environment.

However, the water-saving benefits from dual-flush toilets can be lost if they are leaking into the pan or if it is not clear which button delivers which flush.

Research has shown that between 5% and 8% of UK households have a leaky loo[1,2]. Over 95% of the leaky loo issues have been found on push-button dual-flush toilets, with water leaking into the pan[3]. A leaking dual-flush toilet can waste between hundreds and thousands of litres of water a day.

We also know that with some dual-flush toilets we just can't tell which button delivers which flush, so we press them all or press them repeatedly.

We are working with the water industry and bathroom manufacturers to address these issues, but to help make sure the water-saving benefits of dual-flush toilets aren't lost we also suggest the following water saving-tips for those specifying, buying, installing or maintaining a dual flush toilet.

Seven water-saving tips for buying dual-flush toilets

Materials and design

1. Drop-valves: silicone and neoprene washers/seals were found to fail less than rubber washers/seals[3]. If it is not clear what's present in the product you can ask the manufacturer.
2. Filling-Valves: ball or float valves were found to fail less than diaphragm or equilibrium valves[3,4].
3. Syphon valves were found to be far less likely to cause leaky loos as they have an air gap between the body of water in the cistern and the outlet into the bowl[3]. Typically, these valves use a lever handle[4].

Easy-to-understand flush buttons

4. Choose dual-flush toilets where it is easy to identify which button delivers the big flush and which one delivers the small flush. For example:
   a. Where there is clear separation between the two buttons;
   b. Where the big flush button is noticeably bigger than the small flush button;
   c. Where there are permanent markings on or near the buttons that make the difference clear - such as two dots on the big flush button, one dot on the small flush button.
5. If you do choose a dual-flush toilet type where you think the buttons aren't clear then there may be a sticker in the product packaging which you should display near the toilet buttons. You can find out which button controls which flush by doing a test, timing the period it takes to refill.

Once installed - ongoing maintenance

6. Maintain your dual-flush toilet in line with the manufacturer's guidance.
7. Once the toilet is in use regularly, check it for leaks. Your local water supplier may be able to provide you with toilet leak detection strips free of charge. Alternatively:
   a. Half an hour after a flush, wipe the back of the pan dry with toilet tissue;
   b. Place a new, dry sheet of toilet tissue across the back of the pan;
   c. If the paper is wet or washes away you may have a leaky loo you need to get fixed.

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[1] https://www.waterwise.org.uk/wp-content/uploads/Leaky-Loos-Phase-II_Final-report.pdf

[2] https://www.waterwise.org.uk/knowledge-base/leaky-loo-position-statement-october-2020/

[3] Based on data from Thames Water's Smarter Home and Business Visit programmes

[4] Siphons and ball/float valves may require more space in the cistern. It may not be possible to install them in existing dual flush toilets.