

Dishwashers: Testing the energy variability of different uses

The objective of the study was to achieve greater CO₂ emission reductions in Europe from product standards and Energy Labelling through:

1. The identification of issues and potential failures in standardized product testing
2. The quantification of discrepancies in between real-life and declared performance
3. Suggestions for improvements of standards and declarations.

The report was motivated by the VW diesel scandal, where automobiles recognized the test situation and adapted their emissions to comply with the regulation. Topten wanted to verify if this was also the case for other products.



No compliance issues or hints of circumvention

The tests did not reveal any compliance issues or hints that the appliances might be recognizing the test situation and adjusting its performance accordingly. Circumvention is also hindered by the new standards where the measurement of cleaning and drying performance is combined and measured in the same run.

Different programs and extra functions with very different energy consumptions: 70% more to 30% less!

The energy consumption of dishwashers varies greatly from one program to another. The energy consumption for the intensive programs was up to 70% higher than the declared value, while the short programs consumed 30% less. Different load types and soiling had only a minor effect on the energy consumption. Using the Label Program as a reference does not provide much information on how much energy is actually used.

Loading dishwashers short of their maximum capacity wastes a lot of energy

A half-loaded dishwasher only consumes 10% less energy even when the “half load” function is selected. The effects of extra functions on energy consumption are not communicated to the consumer.

Benefits of “Hot Fill”

If the hot water is heated in an energy-efficient way and the pipe in between the water tank and the dishwasher is short, “Hot Fill” can save 20% of the energy for most programs.

More information

- To the report: http://www.topten.eu/uploads/File/Topten_Dishwashers_May17.pdf
- Contact: Helene.rochat@topten.ch