

## Ecodesign for household refrigerating appliances

9<sup>th</sup> Ecodesign Implementing Measure published in OJ the 23<sup>rd</sup> of July 2009



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On 22 July 2009, the European Commission adopted the ecodesign regulation 643/2009 on household refrigerating appliances. The regulation sets requirements on energy consumption in the use phase and product features designed to ensure more environmentally friendly use of household refrigerating appliances by the end-user.

This regulation aims at strengthening the energy consumption decrease by 2020.

The regulation will enter into force the 10<sup>th</sup> August of 2009.



### Scope of Products

**Electric mains-operated household refrigerating appliances with a storage volume up to 1 500 litres, including those sold for non-household use or for the refrigeration of items other than foodstuffs, and those that can be battery-operated.**

### Requirements and Timescales

#### GENERIC ECODESIGN REQUIREMENTS

- **From 1st July 2010:**

(a) For wine storage appliances, the following information shall be displayed in the instruction booklet provided by manufacturers:

*'This appliance is intended to be used exclusively for the storage of wine'.*

(b) For household refrigerating appliances, information shall be provided in the instruction booklet provided by manufacturers concerning:

- the combination of drawers, baskets and shelves that result in the most efficient use of energy for the appliance; and
- how to minimize the energy consumption of the household refrigerating appliance in the use-phase.

- **From 1st July 2013:**

(a) The fast freezing facility, or any similar function achieved through modification of the thermostat settings, in freezers and freezer compartments, shall, once activated by the end-user according to the manufacturer's instructions, automatically revert to the previous normal storage temperature conditions after no more than 72 hours. This requirement does not apply to refrigerator-freezers with one thermostat and one compressor which are equipped with an electromechanical control board.

(b) Refrigerator-freezers with one thermostat and one compressor which are equipped with an electronic control board and can be used in ambient temperatures below +16 °C according to the manufacturer's instructions shall be such that any winter setting switch or similar function guaranteeing the correct frozen-food storage temperature is automatically operated according to the ambient temperature where the appliance is installed.

(c) Household refrigerating appliances with a storage volume below 10 litres shall automatically enter in an operating condition with a power consumption of 0.00 Watt after no more than 1 hour when empty. The mere presence of a hard off switch shall not be considered sufficient to fulfil this requirement.

#### SPECIFIC ECODESIGN REQUIREMENTS

Household refrigerating appliances within the scope of this Regulation with a storage volume equal to or higher than 10 litres shall comply with the energy efficiency index limits in Tables 1 and 2.

The specific ecodesign requirements in Tables 1 and 2 shall not apply to:

- wine storage appliances; or
- absorption-type refrigerating appliances and other-type refrigerating appliances belonging to Categories with a 1-star compartment, 2-star compartment, 3- star-compartment, refrigerator-freezer, upright freezer, and chest freezer.



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**Table 1: Compression-type refrigerating appliances**

Application date	Energy Efficiency Index (EEI)
1 July 2010	EEI < 55
1 July 2012	EEI < 44
1 July 2014	EEI < 42

**Table 2: Absorption-type and Other-type refrigerating appliances**

Application date	Energy Efficiency Index (EEI)
1 July 2010	EEI < 150
1 July 2012	EEI < 125
1 July 2015	EEI < 110

Further information, including the ecodesign requirements are available on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:191:0053:0068:EN:PDF>

**Opportunity  
for  
Environmental  
Impact  
Improvement**

It is estimated that in 2005 annual energy consumption related to household refrigerating appliances amounted to **122 TWh**, corresponding to **56 Mt of CO<sub>2</sub>** emissions. The energy reduction projected for 2020 is expected to slow in absence of updated measures and the present regulation aims at strengthening energy saving.

**What Now?**

Bureau Veritas CODDE, has been a key partner in the development of many of the Preparatory Studies. Our Bureau Veritas Environmental Impact experts worldwide can work with you to carry out the conformity Assessment according to internal design control system:

- Result of relevant environmental assessments (Life Cycle Assessment): Footprint using our EIME software
- Results of measurements: Energy Consumption Test

We can also advise on how to develop your process to comply with the EuP Directive and the many benefits of environmental impact assessment and improvement.

**CONTACT US**

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