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**Changes to legislation:** There are currently no known outstanding effects for the Commission Decision of 28 August 2001 establishing ecological criteria for the award of the Community eco-label to dishwashers (notified under document number C(2001) 2600) (Text with EEA relevance) (2001/689/EC), ECOLOGICAL CRITERIA. (See end of Document for details)

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## ANNEX

## FRAMEWORK

## ECOLOGICAL CRITERIA

## 1. Energy efficiency

- (a) Dishwashers with 10 or more place settings shall have an energy efficiency index lower than 0,58 as defined in Annex IV to Commission Directive 97/17/EC of 16 April 1997 implementing Council Directive 92/75/EEC with regard to energy labelling of household dishwashers<sup>(1)</sup>, using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC.

Dishwashers with less than 10 place settings but more than five place settings shall have an energy efficiency index lower than 0,64 as defined in Annex IV to Directive 97/17/EC, using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC.

Dishwashers with five or fewer place settings shall have an energy efficiency index lower than 0,76 as defined in Annex IV to Directive 97/17/EC, using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC.

*The applicant shall provide a copy of the technical documentation referred to in Article 2(1) of Directive 97/17/EC. This documentation shall include the reports of at least three measurements of energy consumption made according to EN 50242, using the same programme cycle as chosen for Directive 97/17/EC. The arithmetic mean of these measurements shall be less or equal to the above requirement. The value declared on the energy label shall not be lower than this mean value, and the energy efficiency class indicated on the energy label shall correspond to this mean value.*

*In case of verification, which is not required on application, competent bodies shall take into consideration the tolerances and control procedures laid down in EN 50242.*

- (b) The dishwasher shall be suitable for connection to a hot-fill water supply.

*The applicant shall declare the compliance of the product with this requirement.*

## 2. Water consumption

The water consumption of the dishwasher (expressed as  $W_{\text{(measured)}}$ ) shall be lower or equal to the threshold as defined by the equation below using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC:

$$W_{\text{(measured)}} \leq (0,625 \times S) + 9,25$$

where:

$W_{\text{(measured)}}$	=	the measured water consumption of the dishwasher in litres per cycle, expressed to the first decimal,
S	=	the applicable number of standard place settings of the dishwasher.

*The applicant shall provide a copy of the technical documentation referred to in Article 2(1) of Directive 97/17/EC. This documentation shall include the reports of at least three measurements of water consumption made according to EN 50242, using the same programme cycle as chosen for Directive 97/17/EC. The arithmetic mean of these measurements shall be less or equal to the above requirement. The value declared on the energy label shall not be lower than this mean value.*

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*In case of verification, which is not required on application, competent bodies shall take into consideration the tolerances and control procedures laid down in EN 50242.*

### 3. Prevention of excessive use of detergent

The appliance shall have clear volumetric markings on the detergent dispenser allowing the user to adjust the detergent quantity used according to the type and amount of load and its degree of soil.

*The applicant shall declare the compliance of the product with this requirement.*

### 4. Noise

- (a) Airborne noise from the appliance, counted as sound power, shall not exceed 53 dB (A) for free standing models and 50 dB (A) for built-in models. The noise emissions shall be measured according to EN 50242/EN 60704-2-3/EN 60704-3, using the same test method and programme cycle as chosen for Directive 97/17/EC.
- (b) Information about the noise level of the machine shall be provided in a way clearly visible to the consumer. This shall be done by the incorporation of this information in the energy label for dishwashers.

*The applicant shall provide a copy of the technical documentation referred to in Article 2(1) of Directive 97/17/EC. This documentation shall include the reports of at least three measurements of noise made according to EN 50242, using the same programme cycle as chosen for Directive 97/17/EC. The declared noise shall be derived from these measurements as laid down in the standards referred to in EN 50242, and shall appear on the energy label.*

*In case of verification, which is not required on application, competent bodies shall take into consideration the tolerances and control procedures laid down in EN 50242.*

### 5. Take-back and recycling

- (a) The manufacturer shall offer the take-back, free of charge, for recycling of the dishwasher and of components being replaced by himself or by any commissioned company, except for dishwashers which contain components which do not belong to the dishwasher.
- (b) Plastic parts heavier than 50 grams shall have a permanent marking identifying the material, in conformity with ISO 11469. This requirement does not apply to extruded plastic parts.
- (c) Plastic parts heavier than 25 grams shall not contain the following flame retardants:

Name	CAS No
Decabromodiphenyl	13654-09-6
Monobromodiphenyl ether	101-55-3
Dibromodiphenyl ether	2050-47-7
Tribromodiphenyl ether	49690-94-0
Tetrabromodiphenyl ether	40088-47-9
Pentabromodiphenyl ether	32534-81-9
Hexabromodiphenyl ether	36483-60-0

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Heptabromodiphenyl ether	68928-80-3
Octabromodiphenyl ether	32536-52-0
Nonabromodiphenyl ether	63936-56-1
Decabromodiphenyl ether	1163-19-5
Chloroparaffins with chain length 10-13 C atoms, chlorine content > 50 % by weight	85535-84-8

- (d) Plastic parts heavier than 25 grams shall not contain flame retardant substances or preparations containing substances that are or may be assigned any of the risk phrases R45 (may cause cancer), R46 (may cause heritable genetic damage), R50 (very toxic to aquatic organisms), R51 (toxic to aquatic organisms), R52 (harmful to aquatic organisms), R53 (may cause long-term adverse effects in the aquatic environment), R60 (may impair fertility) or R61 (may cause harm to the unborn child), or any combinations of risk phrases containing any of the above risk phrases, as defined in Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances<sup>(2)</sup>, and its subsequent amendments.

This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the R-phrases listed above, and where less than 0,1 % of the flame retardant in the treated part remains in the form as before application.

- (e) The manufacturer shall take into account disassembly when designing and shall check the disassembly of the dishwasher and provide a disassembly report that shall be made available to third parties on request. Amongst others, the report shall confirm that:
- joints are easy to find and accessible,
  - electronic assemblies are easy to find and to dismantle,
  - the product is easy to dismantle by using commonly available tools,
  - incompatible and hazardous materials are separable.

*The applicant shall declare the compliance of the product with these requirements. The applicant shall provide to the competent body assessing the application a copy of the disassembly report. The applicant and/or his supplier or suppliers, as appropriate, shall indicate to this competent body which flame retardants, if any, have been used in or on plastic parts heavier than 25 grams.*

## 6. Life-time extension

- (a) The manufacturer shall offer a commercial guarantee to ensure that the dishwasher will function for at least two years. This guarantee shall be valid from the date of delivery to the customer.
- (b) The availability of compatible replacement parts shall be guaranteed for 12 years from the time that production ceases.

*The applicant shall declare the compliance of the product with these requirements.*

## 7. Appliance design

- (a) The appliance shall allow the user to select a program for washing a standard load using detergents that work best at temperatures lower than 65 °C.

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- (b) The appliance shall have clear markings identifying the appropriate settings for the programmes available (e.g. standard, low-temperature, half-load, lightly or heavily soiled load, etc.)
- (c) Where applicable, the appliance shall allow the salt dosing to be adjusted to the local water hardness, and shall have a salt refill indicator.

*The applicant shall declare the compliance of the product with these requirements.*

#### 8. Cleaning performance

The dishwasher shall have a cleaning performance index of more than 1,00 as defined in Annex IV to Directive 97/17/EC, using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC. The dishwasher will thus qualify for either cleaning performance class A or B as defined in Annex IV to Directive 97/17/EC.

*The applicant shall provide a copy of the technical documentation referred to in Article 2(1) of Directive 97/17/EC. This documentation shall include the reports of at least three measurements of the cleaning performance index made according to EN 50242 using the same standard programme cycle as chosen for Directive 97/17/EC. The arithmetic mean of these measurements shall be greater than the above requirement. The cleaning performance class indicated on the energy label shall correspond to this mean value.*

*In case of verification, which is not required on application, competent bodies shall take into consideration the tolerances and control procedures laid down in EN 50242.*

#### 9. Drying performance

The dishwasher shall have a drying performance index of more than 0,93 as defined in Annex IV to Directive 97/17/EC, using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC. The dishwasher will thus qualify for either drying performance class A or B as defined in Annex IV to Directive 97/17/EC.

*The applicant shall provide a copy of the technical documentation referred to in Article 2(1) of Directive 97/17/EC. This documentation shall include the reports of at least three measurements of the drying performance index made according to EN 50242 using the same standard programme cycle as chosen for Directive 97/17/EC. The arithmetic mean of these measurements shall be greater than the above requirement. The drying performance class indicated on the energy label shall correspond to this mean value.*

*In case of verification, which is not required on application, competent bodies shall take into consideration the tolerances and control procedures laid down in EN 50242.*

#### 10. User instructions

The appliance shall be sold with an instruction manual which, amongst others, shall provide advice on the correct environmental use and, in particular recommendations for optimal use of energy, water and additives (detergent, salt, etc.) in the operation of the appliance. This manual shall include:

- (a) on the cover page or first page the following text (or equivalent): ‘This product has been awarded the EU eco-label. Information on how to further minimise environmental impacts is given in this manual’;
- (b) advice on how to install the machine so as to minimise the noise emitted;
- (c) advice that the use of the hot-fill can save primary energy and related emissions if the water is heated by solar energy, community heating, modern natural gas or oil heating

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- systems or natural gas continuous flow heater. The user shall be informed that the conduit between the warm water source and the dishwasher should be short and well insulated;
- (d) advice to adjust the salt dosing to the local water hardness, if applicable;
  - (e) advice to use a full load whenever possible;
  - (f) advice to avoid rinsing items before placing them in the dishwasher;
  - (g) advice on the best use of the rinse and hold option, if available;
  - (h) advice on the availability of detergents that work best at temperatures lower than 65 °C and have the potential to save energy;
  - (i) advice on varying the detergent dose according to the type and amount of the load and its degree of soil (for example: a half load requires less detergent). Reference shall be made to the markings in the detergent dispenser;
  - (j) information about the levels of energy and water consumption of the dishwasher for the different programmes, allowing the consumer to identify an appropriate program that makes the least use of energy and water, and also information on the levels of stand-by consumption;
  - (k) advice that the dishwasher should not be left in the 'on' position when it has completed its cycle, because of possible stand-by energy losses. The instruction manual shall state the time needed to complete the programmes available;
  - (l) information on power requirements during the following modes: off mode, timer mode (programming), programme ended mode;
  - (m) advice on appropriate maintenance of the dishwasher, including the regular cleaning of filters, and information on the availability of replacement parts;
  - (n) information that ignoring the abovementioned issues can lead to higher consumption of energy, water and/or detergent and thus can increase the running costs and lead to poor performance;
  - (o) advice on how the consumer can take advantage of the manufacturer's take-back procedure;
  - (p) information that the product has been awarded the EU eco-label, with a brief explanation as to what this means, together with an indication that more information on the eco-label can be found at the website address (<http://europa.eu.int/ecolabel>), and that eco-labelled detergents for dishwashers are available.

*The applicant shall declare the compliance of the product with these requirements, and shall provide a copy of the instruction manual to the competent body assessing the application.*

11. Information appearing on the eco-label

Box 2 of the eco-label shall include the following text:

- very low energy consumption,
- low water consumption,
- designed to facilitate recycling.

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- (1) OJ L 118, 7.5.1997, p. 1.
- (2) OJ 196 16.8.1967, p.1.

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