Commission Working Document on possible energy labelling requirements on domestic ovens and domestic range hoods

(1) Directive 2010/30/EU requires the Commission to adopt delegated acts for energy related products representing significant potential for energy savings and presenting a wide disparity in performance levels with equivalent functionality.

(2) Provisions for the energy labelling of domestic electric ovens were established by Commission Directive 2002/40/EC of 8 May 2002 implementing Council Directive 92/75/EEC with regard to energy labelling of household electric ovens[1].

(4) Technological development in the field of domestic kitchen appliances has been rapid in recent years. The ecodesign preparatory studies showed that, apart from revising Commission Directive 2002/40/EC, domestic gas ovens and domestic range hoods show significant potential for energy savings.

(5) The scope of this delegated Regulation includes domestic electric and gas ovens including when incorporated into cookers and electric mains-operated domestic range hoods also when used for non-domestic purposes.

(6) This delegated Regulation introduces one single energy efficiency scale for all concerned domestic ovens in order to provide consumers more transparent information on the comparative efficiency of ovens and a separate energy efficiency scale for electric mains-operated domestic range hoods.

(7) The A triple + class efficiency level is set for the highest benchmark appliance available in the world's domestic oven and domestic range hoods markets. This will provide an incentive for manufacturers already selling appliances in third country markets to place them also into the EU market.

(9) The energy used by domestic electric or gas ovens and domestic range hoods accounts for a significant part of total energy demand by households in the European Union. In addition to the energy efficiency improvements already achieved, the scope for further reducing the energy consumption of these appliances is substantial as there is a wide disparity in the relevant performance levels.

(10) The delegated Regulation will aim at providing consumers with information closer to real-life performance of domestic ovens and domestic range hoods. The new energy labels will provide incentives for manufacturers to further improve the energy efficiency of these appliances and to accelerate the market transformation towards energy-efficient technologies; the existing products have a significant potential for saving energy.

(11) The combined effect of the provisions set out in this delegated Regulation, and in Commission Regulation (EC) No[…]/2013 of [date, month] 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council[2] with regard to ecodesign requirements for domestic ovens including when incorporated in cookers, hobs and electric mains-operated domestic range hoods could lead to annual electricity

1 OJ L 128, 15.5.2002, p. 45;
2 OJ L 285, 31.10.2009, p.10.

savings[3] of 6.1 TWh by 2020 (electricity final energy consumption) representing 55 PJ or 1.3 Mtoe of primary energy compared to the situation if no measures were taken. The savings of ovens will further increase to 7.1 TWh in 2030.

(12) Domestic ovens and domestic range hoods are used in the kitchen but there may be disturbance due to noise. In order for end-users to make an informed decision, information on sound power level of these appliances should be included on the respective labels recognising the fact that too stringent sound power level requirements can compromise efficiency.

(13) The information provided on the respective labels should be obtained through reliable, accurate and reproducible calculation and measurement methods that take into account the recognised state of the art calculation and measurement methods including, where available, harmonised standards adopted by the European standardisation bodies, as listed in Annex I to Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services[4].

(14) This delegated Regulation should specify a uniform design and content for the labelling of domestic ovens including when incorporated into cookers and electric mains-operated domestic range hoods also when used for non-domestic purposes.

(15) This delegated Regulation should specify requirements as to the technical documentation and the fiche for domestic ovens including when incorporated into cookers and electric mains-operated domestic range hoods also when used for non-domestic purposes.

(16) This delegated Regulation should specify requirements as to the information to be provided for any form of distance selling, advertisements and technical promotional material of domestic ovens including when incorporated into cookers and electric mains-operated domestic range hoods also when used for non-domestic purposes.

(17) It is appropriate to provide for a review of the provisions of this delegated Regulation taking into account technological progress and assessing inter alia the feasibility to address also the odour removal performance.

(18) In order to facilitate the transition from Commission Directive 2002/40/EC to this delegated Regulation, and to coordinate with the planned Ecodesign requirements, manufacturers shall have the freedom to voluntarily apply the label in accordance with this delegated Regulation during the first twelve months after the coming into force of the delegated Regulation.

(19) Commission Directive 2002/40/EC should therefore be repealed [*date to be inserted: x months*] prior to the coming into force of this Regulation.

[3] consisting of 10% for ovens, 24% for hobs and 66% of range hoods
[4] OJ L 217, 5.8.1998, p. 18.

Subject matter and scope

1. This delegated Regulation establishes requirements for the labelling and the provision of supplementary product information of domestic electric and gas ovens including when incorporated into cookers and electric mains-operated domestic range hoods also when used for non- domestic purposes.

2. This Regulation shall not apply to:

   a) appliances that use energy sources other than electric energy or gas;

   b) appliances which have ‘microwave heating’ as a primary cooking function;

   c) small ovens (cavity sizes: width and depth < 250 mm or height < 120 mm);

   d) portable (free standing) ovens with a product mass of 18 kilograms or less;

   e) domestic range hoods without motor.

Definitions

In addition to the definitions laid down in Article 2 of Directive 2010/30/EU, the following definitions shall apply:

1. 'Appliance' means an energy using apparatus with a specific function.
2. 'Domestic' means for household use;
3. 'Oven' means an appliance or part of an appliance which incorporates one or more cavities using gas and/or electricity to operate;
4. 'Cavity' means the enclosed compartment in which the temperature can be controlled for preparation of food;
5. 'Cooker' or 'cooking range' means an appliance consisting of an oven and a hob using gas or electric energy;
6. ‘Microwave heating’ is heating of food using microwave radiation to transfer heat.
7. 'Domestic range hood' means a motor operated appliance intended to collect contaminated air from above a hob or includes a downdraft system intended for installation adjacent to domestic cooking ranges, hobs and similar cooking appliances, that draws vapour down into an internal exhaust duct. The blower of the domestic range hood may be internal or external, provided that is controlled by the domestic range hood. The air may be ducted away or discharged back into the room after filtration;
8. 'Domestic range hood without motor' means an appliance intended to collect contaminated air from above a hob connected to a ventilation appliance not controlled by the range hood;
9. 'End-user' means a consumer buying or expected to buy a domestic appliance;
10. 'Point of sale' means a location where appliances are displayed and/or offered for sale, hire or hire-purchase.
11. 'Conventional mode' means the operation mode of an oven only using natural convection for circulation of heated air inside the cavity;

12. ‘Fan-forced mode’ means a mode of an oven when a built-in fan circulates heated air inside the cavity;
13. 'Operation mode' means the status of an oven during use;
14. 'Automatic functioning mode during the cooking period' means a condition in which the air flow of the domestic range hood during the cooking period is automatically controlled through sensor(s), such as humidity, temperature, etc.;
15. 'Cycle' means the period of heating a standardised load in a cavity of an oven under defined conditions;
16. 'Energy consumption' means the energy consumption per measured cycle of the appliance;
17. 'Heat source' means the main energy form for heating an oven;
18. ‘Fully automatic range hoods’ means a domestic range hood in which the air flow and/or other functions are automatically controlled through sensor(s) during the 24h hours including the cooking period.
19. 'EEI_{oven}' is the energy efficiency index of a domestic oven;
20. 'Fluid Dynamic Efficiency' (FDE) is the fluid dynamic efficiency of the domestic range hood at its best efficiency point (BEP);
21. 'Best efficiency point' (BEP) identifies the domestic range hood operating point with maximum fluid dynamic efficiency;
22. 'Air flow at the BEP' (Q_{BEP}), identifies the air flow at best efficiency point of a domestic range hood (in m3/h);
23. 'Static pressure at the BEP' (P_{BEP}) identifies the pressure at best efficiency point of a domestic range hood (in Pa);
24. 'Electric power consumption at BEP' (W_{BEP}) identifies the electric power at best efficiency point of a domestic range hood (in Watt);
25. 'Annual Energy Consumption' (AEC) is the annual energy consumption of the domestic range hood in kWh/year;
26. 'Standard Annual Energy Consumption' (SAEC) is the standard annual energy consumption of the domestic range hood in kWh/year;
27. 'Energy Efficiency Index hoods' (EEI_{hoods}) is the ratio between AEC and SAEC rounded to the first decimal place for domestic range hoods. 'Lighting Efficiency index' (LE), in lux/W;
28. 'Off mode' is a condition in which the equipment is connected to the mains power source and is not providing any function. Also considered as off mode are conditions providing only an indication of off mode condition, as well as conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2004/108/EC of the European Parliament and of the Council ;
29. 'Standby mode' means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only the following functions, which may persist for an indefinite time: reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status display;

30. 'Reactivation function' means a function facilitating the activation of other modes, including active mode, by remote switch including remote control, internal sensor, timer to a condition providing additional functions, including the main function;

31. 'Information or status display' is a continuous function providing information or indicating the status of the equipment on a display, including clocks.

Responsibilities of suppliers

1. Suppliers shall ensure that:

a.1) a label, as set out in Annex II, point 1, is made available for domestic ovens placed on the market;

a.2) a label, as set out in Annex II, point 2 is made available for electric mains-operated domestic range hoods;

b.1) a product fiche, as set out in Annex III, point 1, is made available for domestic ovens placed on the market;

b.2) a product fiche, as set out in Annex III, point 2 is made available for electric mains-operated domestic range hoods placed on the market;

c.1) the technical documentation as set out in Annex IV, point 1 for domestic ovens is made available on request to the authorities of the Member States;

c.2) the technical documentation as set out in Annex IV, point 2 for electric mains-operated domestic range hoods is made available on request to the authorities of the Member States;

d.1) any advertisement for a specific model of domestic ovens contains the energy efficiency class, if the advertisement discloses energy-related or price information;

d.2) any advertisement for a specific model of domestic range hoods contains the energy efficiency class, if the advertisement discloses energy-related or price information;

e.1) any technical promotional material concerning a specific model of domestic ovens which describes its specific technical parameters includes the energy efficiency class of that model;

e.2) any technical promotional material concerning a specific model of domestic range hoods which describes its specific technical parameters includes the energy efficiency class of that model.

2. a) The energy efficiency classes for the domestic oven label shall be based on the calculation method in accordance with Annex VI, point 1.

b) The energy efficiency classes for the domestic range hoods shall be based on the calculation method in accordance with Annex VI, point 2.

3. a) The format of the domestic oven label shall be as set out in Annex II, point 1.

b) The format of the domestic range hoods shall be as set out in Annex II, point 2.

Responsibilities of dealers

Dealers shall ensure that:

(1.a) domestic ovens at the point of sale bear the label provided by suppliers in accordance with *[Article 3(1)(a.1)]* on the outside of the front or top of the appliance, in such a way as to be clearly visible;

(1.b) domestic range hoods at the point of sale bear the label provided by suppliers in accordance with *[Article 3(1)(a.2)]* on the outside of the front or top of the appliance, in such a way as to be clearly visible;

(2.a) domestic ovens offered for sale, hire or hire purchase where the end-user cannot be expected to see the product displayed, as specified in Article 7 of Directive 2010/30/EU, are marketed with the information provided by suppliers in accordance with *[Article 3(1)(b.1)]* in the format specified in Annex V, point 1;

(2.b) domestic range hoods offered for sale, hire or hire purchase where the end-user cannot be expected to see the product displayed, as specified in Article 7 of Directive 2010/30/EU, are marketed with the information provided by suppliers in accordance with *[Article 3(1)(b.2)]* in the format specified in Annex V, point 2;

(3.a) any advertisement for any form or medium of distance selling and marketing concerning a specific model of domestic oven contains a reference to the energy efficiency class, if the advertisement discloses energy-related or price information;

(3.b) any advertisement for any form or medium of distance selling and marketing concerning a specific model of domestic oven contains a reference to the energy efficiency class, if the advertisement discloses energy-related or price information;

(4.a) any technical promotional material concerning a specific model which describes the technical parameters of a domestic oven includes the energy efficiency class(es) of the model;

(4.b) any technical promotional material concerning a specific model which describes the technical parameters of a domestic range hood includes the energy efficiency class(es) of the model;

Measurement methods

The information to be provided under *[Article 3]* shall be obtained by reliable, accurate and reproducible measurement procedures, which take into account the recognised state of the art calculation and measurement methods, as set out in Annex VII.

Verification procedure for market surveillance purposes

When Member States assess the conformity of the declared energy efficiency class(es), the energy consumption and the sound power level, they shall apply the procedure laid down in Annex VII.

Revision

The Commission shall review this delegated Regulation in the light of technological progress no later than seven years after its entry into force.

Repeal

Commission Directive 2002/40/EC is repealed from [*date to be inserted*].

Entry into force and application

1. This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.
2. It shall apply from *[date to be inserted: 12 months after entry into force of the Regulation]*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

ANNEX I

Energy efficiency classes

1. The energy efficiency classes of **domestic ovens** shall be determined separately for each cavity in accordance with values as set out in Table 1 of this Annex. The energy efficiency of domestic ovens shall be determined in accordance with Annex VI, point 1.

Table 1: Energy efficiency classes of domestic ovens	
Energy Efficiency Class	***Energy Efficiency Index (EEI_{oven})***
A+++ (most efficient)	$EEI_{oven} < 40$
A++	$40 \leq EEI_{oven} < 55$
A+	$55 \leq EEI_{oven} < 75$
A	$75 \leq EEI_{oven} < 95$
B	$95 \leq EEI_{oven} < 105$
C	$105 \leq EEI_{oven} < 120$
D (least efficient)	$EEI_{oven} \geq 120$

2. The energy efficiency classes of **domestic range hoods** shall be determined in accordance with values as set out in Table 2 of this Annex. The energy efficiency of domestic range hoods shall be determined in accordance with Annex VI, point 2.a.

Table 2: Energy efficiency classes of domestic range hoods	
Energy Efficiency Class	***Energy Efficiency Index (EEI_{hood})***
A (most efficient)	$EEI_{hood} < 80$
B	$80 \leq EEI_{hood} < 87$
C	$87 \leq EEI_{hood} < 94$
D	$94 \leq EEI_{hood} < 101$
E	$101 \leq EEI_{hood} < 108$
F	$108 \leq EEI_{hood} < 115$
G (least efficient)	$EEI_{hood} \geq 115$

3. The fluid dynamic efficiency class of a domestic range hood shall be determined in accordance with its Fluid Dynamic Efficiency (FDE) as in the following Table 3. The Fluid Dynamic Efficiency of domestic range hoods shall be determined in accordance with Annex VI, point 2.b.

Table 3: Fluid Dynamic Efficiency classes for domestic range hoods	
Fluid Dynamic Efficiency Class	***Fluid Dynamic Efficiency (FDE_{hood})***
A (most efficient)	$FDE_{hood} > 28$
B	$23 < FDE_{hood} \leq 28$
C	$18 < FDE_{hood} \leq 23$
D	$13 < FDE_{hood} \leq 18$
E	$8 < FDE_{hood} \leq 13$
F	$4 < FDE_{hood} \leq 8$
G (least efficient)	$FDE_{hood} \leq 4$

4. The lighting efficiency class of a domestic range hood shall be determined in accordance with its Lighting Efficiency (LE) as in the following Table 4. The Lighting Efficiency index of domestic range hoods shall be determined in accordance with Annex VI, point 2.c.

Table 4: Lighting Efficiency classes for domestic range hoods	
Lighting Efficiency Class	***Lighting Efficiency (LE_{hood})***
A (most efficient)	$LE_{hood} > 28$
B	$24 < LE_{hood} \leq 28$
C	$20 < LE_{hood} \leq 24$
D	$16 < LE_{hood} \leq 20$
E	$12 < LE_{hood} \leq 16$
F	$8 < LE_{hood} \leq 12$
G (least efficient)	$LE_{hood} \leq 8$

5. The grease filtering efficiency class of a domestic range hood shall be determined in accordance with its Grease Filtering Efficiency (GFE) as in the following Table 5. The Grease Filtering Efficiency of domestic range hoods shall be determined in accordance with Annex VI, point 2.d.

Table 5: Grease Filtering Efficiency (GFE_{hood}) classes for domestic range hoods	
Grease Filtering Efficiency Class	***Grease Filtering Efficiency (%)***
A (most efficient)	$GFE_{hood} > 95$
B	$85 < GFE_{hood} \leq 95$
C	$75 < GFE_{hood} \leq 85$
D	$65 < GFE_{hood} \leq 75$
E	$55 < GFE_{hood} \leq 65$
F	$45 < GFE_{hood} \leq 55$
G (least efficient)	$GFE_{hood} \leq 45$

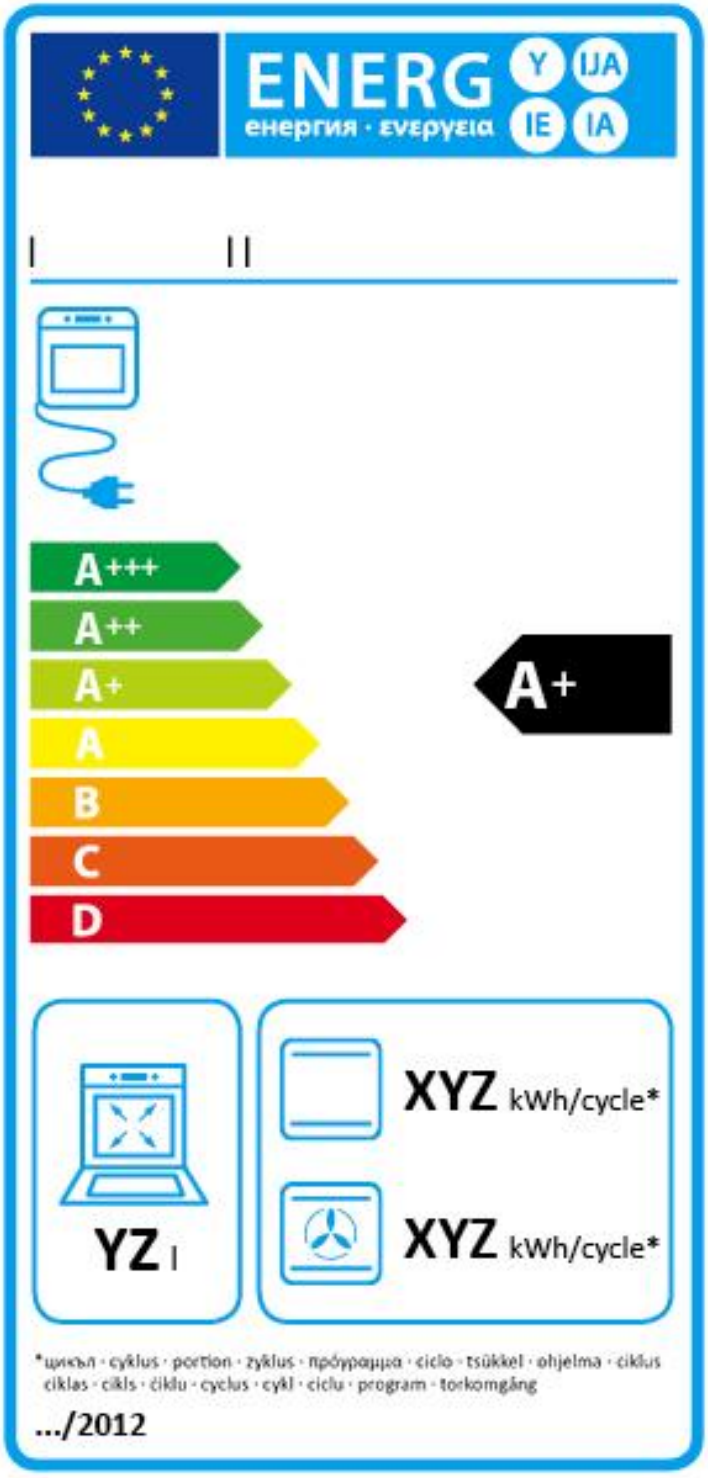
6. Noise value is measured as the airborne acoustical A-weighted sound power emissions of a domestic range hood at the highest setting for normal use, intensive or boost excluded.

ANNEX II

The label

1. LABEL FOR DOMESTIC ELECTRIC OVENS

1.1. ELECTRIC OVENS



I, II

III

IV

V, VI

1.1.1. The following information shall be included in the label:

I supplier's name or trade mark;

II supplier's model identifier, where 'model identifier' means the code, usually alphanumeric, which distinguishes a specific domestic oven model from other models of the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic oven;

III energy source of the oven;

IV The energy efficiency class of the cavity(ies) of the model determined in accordance with Annex I, Table 1. The head of the arrow containing the indicator letter shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;

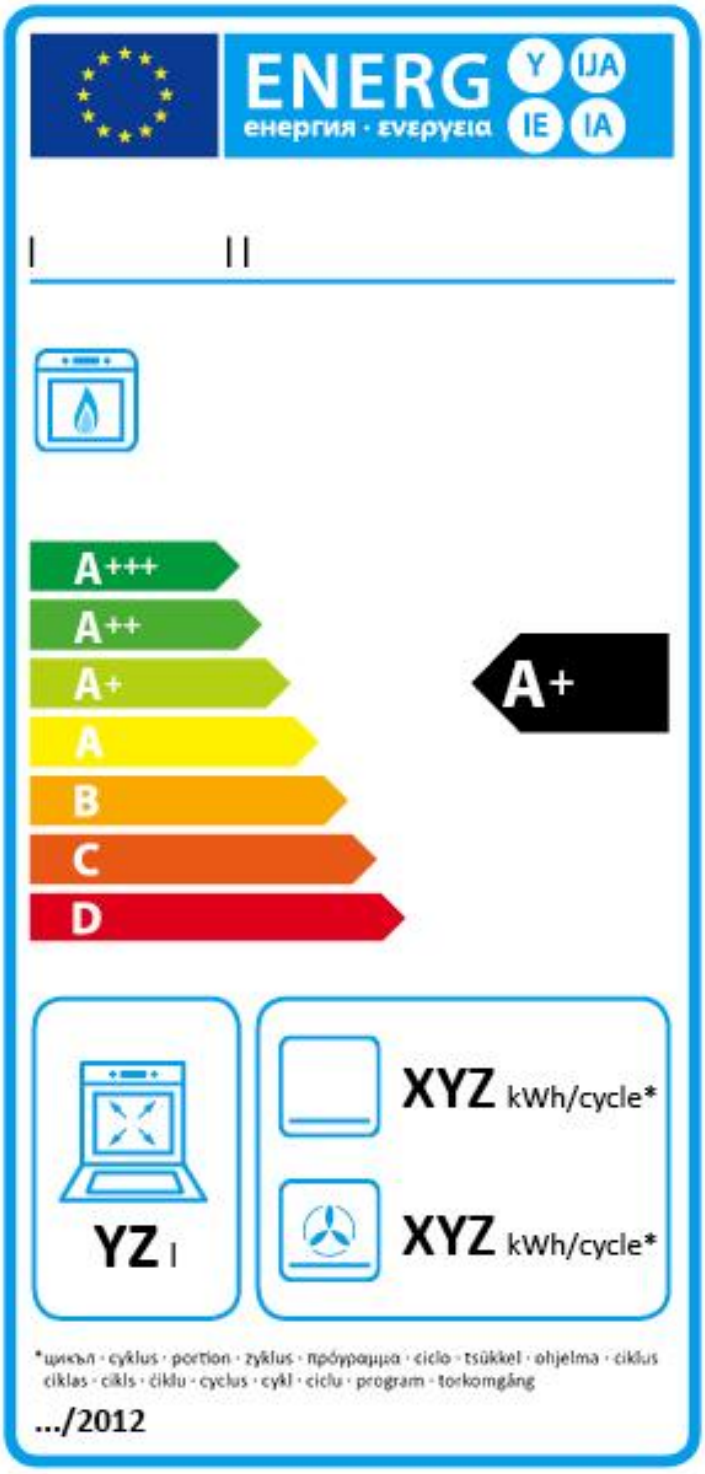
V. Usable volume of the cavity in litres, determined in accordance with the harmonised standards referred to in *[Article 5 and Annex VII]*;

VI. Energy consumption in kWh (electricity final energy consumption) for the heating function(s) (conventional and/or the forced air convection) of appliances based on standard load determined in accordance with the test procedures.

1.1.2. The design of the label shall be in accordance with point 3 of this Annex. By way of derogation, where a model has been granted an 'EU eco-label' under Regulation (EC) No 66/2010[5] of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel, a copy of the EU eco-label may be added.

[5] OJ L 27, 30.1.2010, p 1.

1.2. GAS OVENS



I, II

III

IV

V, VI

1.2.1. The following information shall be included in the label:

I supplier's name or trade mark;

II supplier's model identifier, where 'model identifier' means the code, usually alphanumeric, which distinguishes a specific domestic oven model from other models of the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic oven;

III energy source of the oven;

IV The energy efficiency class of the cavity(ies) of the model determined in accordance with Annex I, Table 1. The head of the arrow containing the indicator letter shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;

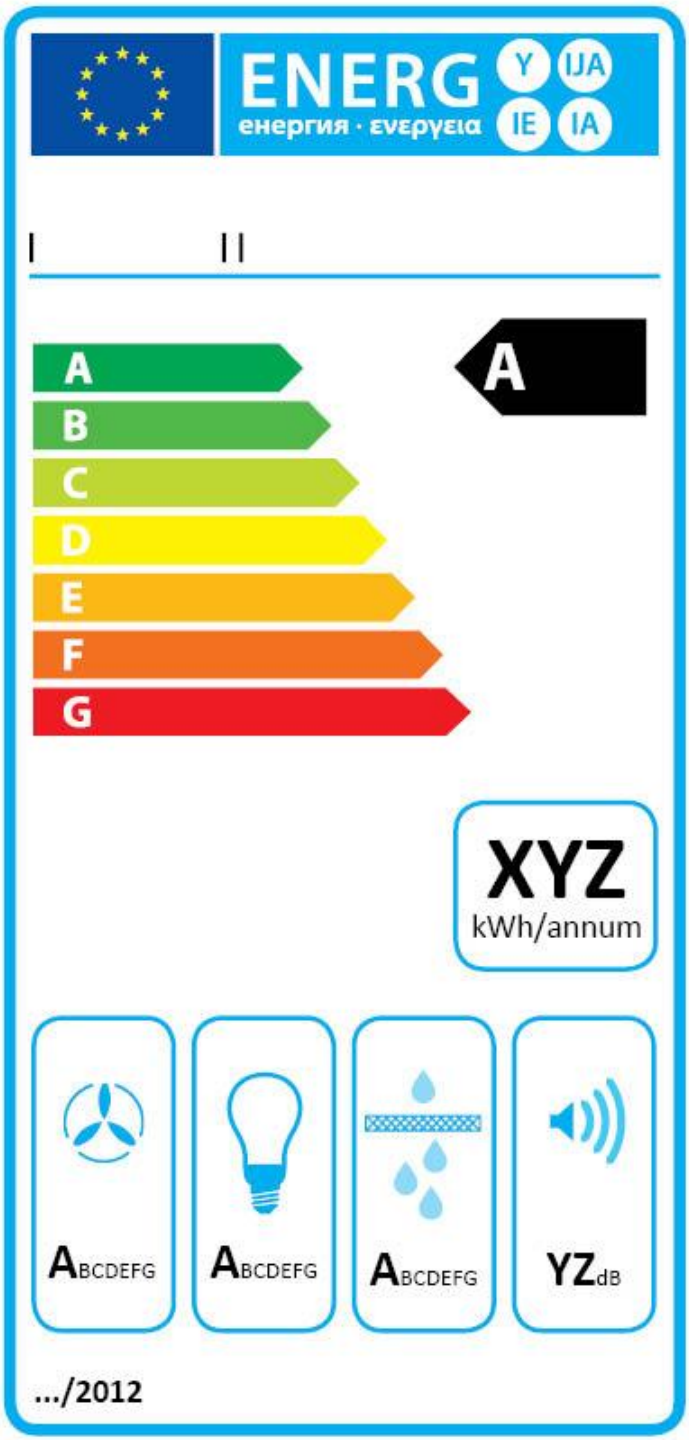
V. Usable volume of the cavity in litres, determined in accordance with the harmonised standards referred to in *[Article 5 and Annex VII]*;

VI. Energy consumption expressed in kWh for the heating function(s) (conventional and/or the forced air convection) of appliances based on standard load determined in accordance with the test procedures.

1.2.2. The design of the label shall be in accordance with point 3 of this Annex. By way of derogation, where a model has been granted an 'EU eco-label' under Regulation (EC) No 66/2010[6] of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel, a copy of the EU eco-label may be added.

[6] OJ L 27, 30.1.2010, p 1.

2. LABEL FOR DOMESTIC RANGE HOODS



I, II

III

IV

V, VI, VII, VIII

[N.B.: Printing specification of the label to be added before publication in the OJ.]

2.1. The following information shall be included in the label:

I. Supplier's name or trade mark;

II. Supplier's model identifier, where 'model identifier' means the code, usually alphanumeric, which distinguishes a specific domestic range hood model from other models of the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic range hood;

III. The energy efficiency class of the domestic range hood, determined in accordance with Annex II, Table 2. The declared energy efficiency class shall not be better than the energy efficiency class reported in the technical documentation in Annex II. The head of the arrow containing the energy efficiency class of the range hood shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;

IV. Annual energy consumption (AEC_{hood}) calculated in accordance with Annex VI point 2, in kWh, rounded to the first integer. The declared value of the annual energy consumption shall not be lower than the value reported in the technical documentation in Annex IV rounded to the first integer;

V. The Fluid Dynamic Efficiency class, determined in accordance with Annex I, Table 3. The declared energy efficiency class shall not be better than the energy efficiency class reported in the technical documentation in Annex IV.

VI. The Lighting Efficiency class, determined in accordance with Annex I, Table 4. The declared energy efficiency class shall not be better than the energy efficiency class reported in the technical documentation in Annex IV;

VII. The Grease Filtering Efficiency class, determined in accordance with Annex I, Table 5. The declared energy efficiency class shall not be better than the energy efficiency class reported in the technical documentation in Annex IV;

VIII. The Noise Value, determined in accordance with Annex I.6, rounded to the integer. The declared value shall not be lower than the value reported in the technical documentation in Annex IV, rounded to the integer.

2.2. The design aspects of the label shall be in accordance with point 2.

3. LABEL DESIGN

1. Domestic ovens

1.1. For electric ovens, the design of the label shall be as in the figure below.

[figure]

Whereby:

(i) The label shall be at least 110 mm wide and 220 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.

(ii) The background shall be white.

(iii) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(iv) The label shall fulfil all of the following requirements (numbers refer to the figure above):

❶ **EU label border stroke:** 4.5 pt – colour: Cyan 100% – round corners: 3.5 mm.

❷ **EU logo** – colours: X-80-00-00 and 00-00-X-00.

❸ **Energy label:** colour: X-00-00-00;
Pictogram as supplied: EU logo + energy label: width: 82 mm, height: 16 mm.

❹ **Sub-logos border:** 1 pt – colour: Cyan 100% – length: 81 mm.

❺ **A+++-D scale**

- **Arrow:** height: 6.3 mm, gap: 1.2 mm – colours:

  Highest class: X-00-X-00;

  Second class: 70-00-X-00;

  Third class: 30-00-X-00;

  Fourth class: 00-00-X-00;

  Fifth class: 00-30-X-00;

  Sixth class: 00-70-X-00;

  Last class(es): 00-X-X-00;

- **Text: "A":** Myriad Pro Regular 16, capitals, white.
  "+": Myriad Pro Regular 9, white.

❻ **Energy efficiency class**

- **Arrow:** width: 24 mm, height: 12 mm, 100% black;
- **Text:** Myriad Pro Regular 23 pt, capitals, white.

❼ **Energy**

- **Text:** Myriad Pro Regular 9 pt, capitals, black.

❽ **Energy consumption per cycle**

- **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm;
- **Text:** Myriad Pro Regular 10 pt, 100% black;
- **Colours of the map**: Light blue: 58-00-19-00;
  Dark blue: 49-18-00-00;
  orange: 00-39-46-00.

❾ **Supplier's name or trademark**

❿ **Supplier's model identifier**

❿ The suppliers' name or trade mark and model identifier should fit in a space of 81 x 13 mm.

❿ **Numbering of the Regulation:** Calibri bold 9 pt, 100% black

1.2. For gas ovens, the design of the label shall be as in the figure below.

[figure]

Whereby:

(i) The label shall be at least 110 mm wide and 220 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.

(ii) The background shall be white.

(iii) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(iv) The label shall fulfil all of the following requirements (numbers refer to the figure above):

❶ **EU label border stroke:** 4.5 pt – colour: Cyan 100% – round corners: 3.5 mm.

❷ **EU logo** – colours: X-80-00-00 and 00-00-X-00.

❸ **Energy label:** colour: X-00-00-00;
Pictogram as supplied: EU logo + energy label: width: 82 mm, height: 16 mm.

❹ **Sub-logos border:** 1 pt – colour: Cyan 100% – length: 81 mm.

❺ **A+++-D scale**

- **Arrow:** height: 6.3 mm, gap: 1.2 mm – colours:

  Highest class: X-00-X-00;

  Second class: 70-00-X-00;

  Third class: 30-00-X-00;

  Fourth class: 00-00-X-00;

  Fifth class: 00-30-X-00;

  Sixth class: 00-70-X-00;

  Last class(es): 00-X-X-00;

- **Text: "A":** Myriad Pro Regular 16, capitals, white.
  "+": Myriad Pro Regular 9, white.

❻ **Energy efficiency class**

- **Arrow:** width: 24 mm, height: 12 mm, 100% black;
- **Text:** Myriad Pro Regular 23 pt, capitals, white.

❼ **Energy**

- **Text:** Myriad Pro Regular 9 pt, capitals, black.

❽ **Energy consumption per cycle**

- **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm;
- **Text:** Myriad Pro Regular 10 pt, 100% black;
- **Colours of the map**: Light blue: 58-00-19-00;
  Dark blue: 49-18-00-00;
  orange: 00-39-46-00.

❾ **Supplier's name or trademark**

❿ **Supplier's model identifier**

❿ The suppliers' name or trade mark and model identifier should fit in a space of 81 x 13 mm.

❿ **Numbering of the Regulation:** Calibri bold 9 pt, 100% black

2. For range hoods, the design of the label shall be as in the figure below.

[figure]

Whereby:

(i) The label shall be at least 110 mm wide and 220 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.

(ii) The background shall be white.

(iii) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(iv) The label shall fulfil all of the following requirements (numbers refer to the figure above):

❶ **EU label border stroke:** 4.5 pt – colour: Cyan 100% – round corners: 3.5 mm.

❷ **EU logo** – colours: X-80-00-00 and 00-00-X-00.

❸ **Energy label:** colour: X-00-00-00;
Pictogram as supplied: EU logo + energy label: width: 82 mm, height: 16 mm.

❹ **Sub-logos border:** 1 pt – colour: Cyan 100% – length: 81 mm.

❺ **A-G scale**

- **Arrow:** height: 6.3 mm, gap: 1.2 mm – colours:

  Highest class: X-00-X-00;

  Second class: 70-00-X-00;

  Third class: 30-00-X-00;

  Fourth class: 00-00-X-00;

  Fifth class: 00-30-X-00;

  Sixth class: 00-70-X-00;

  Last class(es): 00-X-X-00;

- **Text: "A":** Myriad Pro Regular 16, capitals, white.
  "+": Myriad Pro Regular 9, white.

❻ **Energy efficiency class**

- **Arrow:** width: 24 mm, height: 12 mm, 100% black;
- **Text:** Myriad Pro Regular 23 pt, capitals, white.

❼ **Energy**

- **Text:** Myriad Pro Regular 9 pt, capitals, black.

❽ **Annual energy consumption**

- **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm;
- **Text:** Myriad Pro Regular 10 pt, 100% black;
- **Colours of the map**: Light blue: 58-00-19-00;
  Dark blue: 49-18-00-00;
  orange: 00-39-46-00.

❾ **Supplier's name or trademark**

❿ **Supplier's model identifier**

❿ The suppliers' name or trade mark and model identifier should fit in a space of 81 x 13 mm.

❿ **Numbering of the Regulation:** Calibri bold 9 pt, 100% black

ANNEX III

I. Fiche for domestic ovens

1. The information in the product fiche of the domestic ovens referred to in *[Article 3(1)(b.1)]*shall be given in the order specified below, or given in the description of the appliance. The following notes define the information to be included in the fiche of the domestic oven:

   a. supplier's name or trade mark;

   b. supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific domestic ventilation appliance model from other models with the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic oven (Annex II);

   c. the energy efficiency class of the model for each cavity as defined in Annex I, Table 1; the declared class shall not be better than the class reported in the technical documentation in Annex IV;

   d. the energy consumption per cycle for each cavity if available in conventional mode and in fan-forced convection mode (the measured energy consumption shall be expressed in kWh and in MJ for all appliance models, rounded to the first decimal place); the declared value shall not be lower than the value reported in the technical documentation in Annex IV;

   e. the mass of the appliance;

   f. the number of cavities; the heat source(s) per cavity; the operation modes per cavity; the dimensions and volume of each cavity;

   g. if the domestic oven is intended to be built-in, an indication to this effect.

2. Without prejudice to any requirements under the Community eco-label scheme, where a model has been granted a European Union eco-label under the Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009, a copy of the eco-label may be added.

3. One fiche may cover a number of appliance models supplied by the same supplier.

4. The information contained in the fiche may be given in the form of a copy of the label (either in colour or in black and white). Where this is the case, the information listed in point 1, not already displayed on the label, shall also be provided.

II. Fiche for domestic range hoods

1. The information in the product fiche of the domestic range hoods referred to in *[Article 3(1)(b.2)]* shall be given in the order specified below, or given in the description of the appliance. The following notes define the information to be included in the fiche of the domestic range hood:

   a. supplier's name or trade mark;

   b. supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific domestic ventilation appliance model from other models with the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic range hood (Annex II);

c. the Energy Efficiency class, as defined in Annex I, Table 2; the declared class shall not be better than the class reported in the technical documentation in Annex IV;

d. the Annual Energy Consumption (AEC_{hood}) calculated according to Annex VI point 2, in kWh/year and rounded to the first decimal place; the declared value shall not be lower than the value reported in the technical documentation in Annex IV;

e. the Fluid Dynamic Efficiency (FDE_{hood}) calculated according to Annex VI point 2, in percentage and rounded to the first decimal place; the declared value shall not be higher than the value reported in the technical documentation in Annex IV;

f. the Fluid Dynamic Efficiency class, as defined in Annex I, Table 3; the declared class shall not be better than the class reported in the technical documentation in Annex IV;

g. the Lighting Efficiency calculated according to Annex VI point 2, in lux/Watt and rounded to the first decimal place; the declared value shall not be higher than the value reported in the technical documentation in Annex IV;

h. the Lighting Efficiency class, as defined in Annex I, Table 4; the declared class shall not be better than the class reported in the technical documentation in Annex IV;

i. the Grease Filtering Efficiency calculated according to Annex VI point 2, in percentage and rounded to the first decimal place; the declared value shall not be higher than the value reported in the technical documentation in Annex IV;

j. the Grease Filtering Efficiency class, as defined in Annex I, Table 5; the declared class shall not be better than the class reported in the technical documentation in Annex IV;

k. the air flow (in m3/h, and rounded to the nearest integer), at minimum and maximum speed in normal use, intensive or boost excluded; the declared values shall not be higher than the values reported in the technical documentation in Annex IV;

l. if available, the air flow (in m3/h and rounded to the nearest integer), at intensive or boost setting; the declared value shall not be higher than the values reported in the technical documentation in Annex IV;

m. the airborne acoustical A-weighted sound power emissions (in dB rounded to the nearest integer), at minimum and maximum speed available in normal use; the declared value shall not be lower than the value reported in the technical documentation in Annex IV;

n. if available, the airborne acoustical A-weighted sound power emissions (in dB rounded to the nearest integer), at intensive or boost setting; the declared value shall not be lower than the value reported in the technical documentation in Annex IV;

o. if applicable, the power consumption in off mode, (Po), in Watt and rounded to the second decimal place; the declared values shall not be lower than the values reported in the technical documentation in Annex V;

p. if applicable, the power consumption in standby mode, (Ps), in Watt and rounded to the second decimal place; the declared values shall not be lower than the values reported in the technical documentation in Annex V.

2. One fiche may cover a number of models supplied by the same supplier.

3. The information contained in the fiche may be given in the form of a copy of the label (either in colour or in black and white). Where this is the case, the information listed in point 1, not already displayed on the label, shall also be provided.

ANNEX IV

I. Technical documentation for domestic ovens

A. The technical documentation referred to in *[Article 3(1)(c.1)]* shall include at minimum:

(a) the name and address of the supplier;

(b) a general description of the appliance model, sufficient for it to be unequivocally and easily identified, including the supplier's model identifier (i.e. the code, usually alphanumeric) which distinguishes a specific domestic ventilation appliance model from other models with the same trade mark or supplier's name and with different declared values for any of the parameters included in the label for the domestic oven (Annex II); the general description shall include the following information:

1) the mass of the appliance model;

2) the number of cavities;

3) the volume of each cavity;

4) the heat source(s) per cavity;

5) the heating function(s) (conventional and/or the forced air convection) per cavity;

6) the (final) energy consumption per cycle for each cavity in kWh and in MJ for the heating function(s) (conventional and/or the forced air convection);

7) the energy efficiency class of the oven for each cavity as defined in Annex I, Table 1;

8) the energy efficiency index (EEI_{oven}) calculated in accordance with Annex VI point 2 and rounded to the first decimal place;

9) if the domestic oven is intended to be built-in, an indication to this effect;

10) a copy of the calculation.

(c) where appropriate, the references of the harmonised standards applied;

(d) where appropriate, the other technical standards and specifications used;

(e) identification and signature of the person empowered to bind the supplier;

B. Suppliers may include additional information at the end of the above list.

II. Technical documentation for domestic range hoods

A. The technical documentation referred to in [Article 3(1)(6)] shall include at minimum:

(a) the name and address of the supplier;

(b) a general description of the appliance model, sufficient for it to be unequivocally and easily identified, including the supplier's model identifier (i.e. the code, usually alphanumeric) which distinguishes a specific domestic ventilation appliance model from other models with the same trade mark or supplier's name and with different

declared values for any of the parameters included in the label for the domestic range hood (Annex II); the general description shall include the following information:

1) the energy efficiency class, as defined in Annex I, Table 2;
2) the energy efficiency index (EEI_{hood}) calculated in accordance with Annex VI point 2 and rounded to the first decimal place;
3) the annual energy consumption (AEC_{hood}) calculated in accordance with Annex VI point 2, in kWh/year and rounded to the first decimal place;
4) the time increase factor (f), in accordance with Annex VI point 2, rounded to the first decimal place;
5) the Fluid Dynamic Efficiency (FDE_{hood}) calculated according to Annex VI point 2, rounded to the first decimal place;
6) the Fluid Dynamic Efficiency class, as defined in Annex I, Table 3;
7) the measured value of the air flow of the domestic range hood at the best efficiency point (Q_{BEP}), in m3/h and rounded to the integer;
8) the measured value of the static pressure of the domestic range hood at the best efficiency point (P_{BEP}), in Pa and rounded to the integer;
9) the measured value of the electric power consumption of the domestic range hood at the best efficiency point (W_{BEP}), in Watt and rounded to the first decimal place;
10) the measure value of the Lighting Efficiency (LE_{hood}) calculated according to Annex VI point 2, in lux/Watt and rounded to the first decimal place;
11) the Lighting Efficiency class, as defined in Annex I, Table 4;
12) the measured value of the Grease Filtering Efficiency (GFE_{hood}) calculated according to Annex VI point 2, in percentage and rounded to the first decimal place;
13) the Grease Filtering Efficiency class, as defined in Annex I, Table 5;
14) the average illumination of the lighting system on the cooking surface (E_{middle}), in lux and rounded to the integer;
15) the nominal power consumption of the lighting system on the cooking surface (W_L), in Watt and rounded to the first decimal place;
16) if applicable the power consumption in off mode, (P_o), in Watt and rounded to the second decimal place;
17) if applicable the power consumption in standby mode (P_s), in Watt and rounded to the second decimal place;
18) the airborne acoustical A-weighted sound power emissions at minimum and maximum speed available in normal use, in dB rounded to the integer;
19) if present, the airborne acoustical A-weighted sound power emissions at intensive or boost setting, in dB and rounded to the integer;
20) the air flow values of the range hood at minimum and maximum speed available in normal use, in m_3/h and rounded to the integer;

21) if present, the air flow value of the range hood at intensive or boost setting, in m_3/h and rounded to the integer;

22) a copy of the calculations.

(c) where appropriate, the references of the harmonised standards applied;

(d) where appropriate, the other technical standards and specifications used;

(e) identification and signature of the person empowered to bind the supplier;

B. Suppliers may include additional information at the end of the above list.

ANNEX V

Distance selling and other forms of selling where end-users cannot be expected to see the physical product displayed

I. Domestic ovens

1. The information referred to in *[Article 4(2.a)]* shall be provided in the following order:
   (a) Supplier's name or trade mark;
   (b) Supplier's model identifier, i.e. the model identifier of the indoor and of the outdoor elements of the combination to which the figures quoted below apply;
   (c) The energy efficiency class of the model for each cavity as defined in Annex I, point 1;
   (d) The (final) energy consumption per cycle for each cavity in kWh and in MJ for the heating function(s) (conventional and/or the forced air convection);
   (f) The mass of the appliance model; the number of cavities; the heat source(s) per cavity; the operation modes per cavity; the dimensions and volume of each cavity;
2. Where other information contained in the product information fiche is also provided, it shall be in the form and order specified in Annex III.
3. The size and font in which all the information referred in this Annex is printed or shown shall be legible.

II. Domestic range hoods

1. The information referred to in *[Article 4(2.b)]*shall be provided in the following order:
   (a) Supplier's name or trade mark;
   (b) Supplier's model identifier, i.e. the model identifier of the indoor and of the outdoor elements of the combination to which the figures quoted below apply;
   (c) The energy efficiency class of the model as defined in Annex I, point 2;
   (d) The fluid dynamic efficiency class of the model as defined in Annex I, point 3;
   (e) The lighting efficiency class of the model as defined in Annex I, point 4;
   (f) The grease filtering efficiency class of the model as defined in Annex I , point 5;
   (g) The noise value of the model as defined in Annex I point 6;
   (e) The annual energy consumption for the model in kWh.
2. Where other information contained in the product information fiche is also provided, it shall be in the form and order specified in Annex III.
3. The size and font in which all the information referred in this Annex is printed or shown shall be legible.

ANNEX VI

Measurements and calculations

For the purposes of compliance and verification of compliance with the requirements of this delegated Regulation, measurements and calculations shall be made using a reliable, accurate and reproducible method, which takes into account the generally recognised state of the art methods, and whose results are deemed to be of low uncertainty, including methods set out in documents the reference numbers of which have been published for that purpose in the *Official Journal of the European Union*. They shall fulfil all of the following technical parameters.

The test parameters below shall be assessed in accordance with the definitions in *[Article 2]*, complemented by reliable, accurate and reproducible measurement procedures, which take into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the *Official Journal of the European Union*.

1. Domestic ovens

The useable volume of the cavity of an oven shall be calculated as product of height, width and depth of the cavity. Height, width and depth are determined with a cylinder with a diameter of 200 mm. The height is the maximum length of the vertically placed cylinder from the middle of the bottom of the cavity to the lowest point on the ceiling. The width of the cavity is the maximum length of the cylinder between the two side walls and the depth is the maximum length of the cylinder between the centre of the back wall to the inner face of the closed door.

Heating of an oven shall be done with a standardised load, soaked with water.

The energy consumption of a domestic oven shall be measured for one cycle, if available in both the conventional mode and the fan-forced mode, by heating a wet brick. The lowest value of the cycle in conventional mode or in fan-forced mode is used.

For domestic electric and gas ovens, the Energy Efficiency Index (EEI_{oven}) shall be calculated according to the following formulas:

$$EEI_{oven} = (EC_{electric}/SEC_{oven}) \times 100 \quad \text{(for electric ovens)}$$

$$EEI_{oven} = (EC_{gas}/SEC_{oven}) \times 100 \quad \text{(for gas ovens)}$$

$$SEC_{oven} = 0.0283 \times V + 0.4824$$

Where:

EEI_{oven} = Energy Efficiency Index for ovens, in % and rounded to the first decimal place

SEC_{oven} = Standard Energy Consumption required to heat a standardised load in a cavity of an oven during a cycle, expressed in kWh as primary energy consumption (by applying a conversion factor 2.5) and rounded to the first decimal place

V = Volume of the cavity of the oven in (l)

$EC_{electric}$ = Electricity consumption required to heat a standardised load in a cavity of an oven during a cycle, expressed in kWh as primary energy consumption (by applying a conversion factor 2.5) and rounded to the first decimal place

EC_{gas} = Energy consumption required to heat a standardised load in a cavity of an oven during a cycle, expressed in kWh

2. Domestic range hoods

Calculation of the Fluid Dynamic Efficiency, Energy Efficiency Index and Annual Energy Consumption of domestic range hoods are set out below.

a) Calculation of the Energy Efficiency Index (EEI_{hood})

The Energy Efficiency Index (EEI_{hood}) is calculated as:

$$EEI_{hood} = (AEC_{hood} / SAEC_{hood}) \times 100 \qquad (\%)$$

and is rounded to the first decimal place

Where:

- $SAEC_{hood}$ = standard annual energy consumption of the domestic range hood in kWh/year and rounded to the first decimal place.
- AEC_{hood} = annual energy consumption of the domestic range hood in kWh/year and rounded to the first decimal place

The Standard Annual Energy Consumption ($SAEC_{hood}$) of a domestic range hood shall be calculated, in kWh/year and rounded to the first decimal places, as:

$$SAEC_{hood} = 0.6217 \times (W_{BEP} + W_L) + 2.7482$$

The Annual Energy Consumption (AEC_{hood}) of a domestic range hood is calculated, in kWh/year and rounded to the first decimal place, as:

i) for the fully automatic range hoods:

$$AEC = \left[\frac{W_{BEP} \times 60 \times f + W_L \times t_L}{60 \times 1.000} + \frac{P_o \times (440 - 60 \times f)}{2 \times 60 \times 1.000} + \frac{P_s \times (440 - 60 \times f)}{2 \times 60 \times 1.000} \right] \times 365$$

ii) for all other domestic range hoods:

$$AEC = \frac{\left[W_{BEP} \times (H \times f) + W_L \times t_L \right]}{60 \times 1000} \times 365$$

Where:

- W_{BEP} is the electric power consumption at the best efficiency point, in Watt and rounded to the first decimal place

- W_L is the nominal power consumption of the lighting system on the cooking surface, in Watt and rounded to the first decimal place

- t_L is the average lighting time per day, in minutes, $t_L = 120$

- t_H is the average running time per day for domestic range hoods, in minutes, $t_H = 60$

- P_o is the power consumption in off-mode for domestic range hoods, in Watt and rounded to the second decimal place

- P_s is the power consumption in standby mode for domestic old range hoods, in Watt and rounded to the second decimal place

- f is the time increase factor, rounded to the first decimal place, as:

$$f = 2 - (FDE_{hood} \times 3.6)/100$$

b) Calculation of the Fluid Dynamic Efficiency (FDE_{hood})

The Fluid Dynamic Efficiency (FDE_{hood}) at the best efficiency point is calculated by the following formula, and is rounded to the first decimal place:

$$FDE = \frac{Q_{BEP} \times P_{BEP}}{3600 \times W_{BEP}} \times 100$$

Where:

- Q_{BEP} is the air flow at best efficiency point, in m^3/h and rounded to the integer
- P_{BEP} is the static pressure at best efficiency point, in Pa and rounded to the integer
- W_{BEP} is the electric power consumption at the best efficiency point, in Watt and rounded to the first decimal place.

c) Calculation of the Lighting Efficiency (LE_{hood})

The Lighting Efficiency (LE_{hood}) of a domestic range hood means the ratio between the average illumination and the nominal power consumption of the lighting system. It shall be calculated in lux per Watt and rounded at the first decimal place, as:

$$LE_{hood} = E_{middle} / W_L$$

Where:

- E_{middle} is the average illumination of the lighting system on the cooking surface, in lux and rounded to the first decimal place
- W_L is the nominal power consumption of the lighting system on the cooking surface in W and rounded to the first decimal place.

d) Calculation of the Grease Filtering Efficiency (GFE_{hood})

The Grease Filtering Efficiency (GFE_{hood}) of a domestic range hood means the percentage of grease retained within the domestic range hood grease filters and shall be calculated as:

$$GFE_{hood} = [w_g / (w_r + w_t + w_g)] \times 100 \qquad (\%)$$

Where:

w_g = the mass of oil in the grease filter, including all detachable coverings;

w_r = the mass of oil retained in the airways of the range hood;

w_t = the mass of oil retained in the absolute filter

e) Noise

The **Noise Value** (in dB) is measured as the airborne acoustical A-weighted sound power emissions (weighted average value - L_{WA}) of a household range hood at the highest setting for normal use, intensive or boost excluded.

ANNEX VII

Verification procedure for market surveillance purposes

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published in the *Official Journal of the European Union*, or other reliable, accurate and reproducible methods, which take into account the generally recognised state of the art methods, and whose results are deemed to be of low uncertainty.

For the purposes of checking conformity with the requirements laid down in *[Articles 3 and 4]*, Member State authorities shall test a single appliance. If the measured parameters do not meet the values declared by the supplier within the ranges set out in Table 6, the measurements shall be carried out on three more appliances. The arithmetic mean of the measured values of those three appliances shall meet the values declared by the supplier within the ranges defined in Table 6.

Otherwise, the model and all other equivalent appliance models shall be considered not to comply with the requirements laid down in *[Articles 3 and 4]*.

Table 6: Verification tolerances	
Measured parameters	Verification tolerances
EEI_{oven}, EE_{hob} or EEI_{hood}	The measured value shall not be greater than the rated value* of EEI_{oven}, EE_{hob} or EEI_{hood} by more than 5 %.
Volume of the cavity of the oven (V)	The measured value shall not be greater than the rated value of V by more than 5%.
FDE_{hood}	The measured value shall not be greater than the rated value of FDE_{hood} by more than 5%.
AEC_{hood}	The measured value shall not be less than the rated value of AEC_{hood} by more than 5 %.
t_{limit}	The measured value shall not be longer than the rated values of t_{limit} by more than 1 %.
Q_{max}	The measured value shall not be longer than the rated values of Q_{max} by more than 8 %.
P_o, P_s	The measured value of power consumption P_o and P_s shall not be greater than the rated value by more than 5%.
Sound power level L_{WA}	The measured value shall not be greater than the rated value.

* 'rated value' means a value that is declared by the manufacturer. The uncertainty in the measurement represents the current acceptable testing laboratory error in measuring the declared parameters.