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Contents

II *Non-legislative acts*

REGULATIONS

- ★ **Commission Delegated Regulation (EU) No 65/2014 of 1 October 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of domestic ovens and range hoods ⁽¹⁾ 1**
- ★ **Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods ⁽¹⁾ 33**

Price: EUR 3

⁽¹⁾ Text with EEA relevance

EN

Acts whose titles are printed in light type are those relating to day-to-day management of agricultural matters, and are generally valid for a limited period.

The titles of all other acts are printed in bold type and preceded by an asterisk.

II

(Non-legislative acts)

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) No 65/2014

of 1 October 2013

supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of domestic ovens and range hoods**(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products ⁽¹⁾, and in particular Article 10 thereof,

Whereas:

- (1) Directive 2010/30/EU requires the Commission to adopt delegated acts as regards the labelling of energy-related products that offer significant potential for energy savings and present a wide disparity in performance levels with equivalent functionality.
- (2) The energy used by electric ovens accounts for a significant part of total energy demand in the Union. In addition to the energy efficiency improvements already achieved, the scope for further reducing the energy consumption of these appliances is substantial.
- (3) Provisions for the energy labelling of household 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 ⁽²⁾.
- (4) Technological development in the field of domestic cooking appliances has been rapid in recent years. The ecodesign preparatory studies showed that domestic gas ovens and range hoods show significant potential for energy savings. In order to ensure that the energy

labels provide dynamic incentives for suppliers to further improve the energy efficiency of these appliances and to accelerate market transformation towards energy-efficient technologies, Directive 2002/40/EC should be repealed and new provisions should be laid down.

- (5) The provisions of this Regulation should apply to domestic electric and gas ovens, including when incorporated into cookers, and to domestic electric range hoods.
- (6) This Regulation should introduce a revised energy efficiency scale from A⁺⁺⁺ to D for all ovens concerned and a new energy efficiency scale from A to G with a '+' added on at the top of the scale every two years until the A⁺⁺⁺ class has been reached for domestic range hoods, these further classes should be added to accelerate the market penetration of high-efficiency appliances.
- (7) The combined effect of the provisions set out in this Regulation, and in Commission Regulation (EU) No 66/2014 ⁽³⁾ on the ecodesign requirements for domestic ovens, hobs and range hoods is expected to result in annual primary energy savings of 27 PJ/a in 2020, increasing up to 60 PJ/a by 2030.
- (8) The sound power level of a domestic range hood can be an important consideration for end-users. Information on sound power levels should be included on the labels of domestic range hoods, to enable end-users to make an informed decision.
- (9) 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

⁽¹⁾ OJ L 153, 18.6.2010, p. 1.⁽²⁾ OJ L 128, 15.5.2002, p. 45.⁽³⁾ See page 33 of this Official Journal.

measurement methods including, where available, harmonised standards adopted by the European standardisation organisations, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation ⁽¹⁾.

- (10) This Regulation should specify a uniform design and content for the labelling of domestic ovens, including when incorporated into cookers, and domestic electric range hoods.
- (11) This Regulation should specify requirements as to the technical documentation and the fiche for domestic ovens, including when incorporated into cookers, and domestic electric range hoods, also when used for non-domestic purposes.
- (12) This Regulation should specify requirements as to the information to be provided for any form of distance selling, advertising and technical promotional material of domestic ovens (including when incorporated into cookers) and domestic electric range hoods, also when used for non-domestic purposes.
- (13) It is appropriate to provide for a review of the provisions of this Regulation taking into account technological progress, and in particular the effectiveness and the appropriateness of the approach followed for the determination of the domestic ovens energy efficiency classes,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

1. This Regulation establishes requirements for the labelling and the provision of supplementary product information for domestic electric and gas ovens (including when incorporated into cookers) and for domestic electric range hoods, including when sold for non-domestic purposes.
2. This Regulation shall not apply to:
 - (a) ovens that use energy sources other than electricity or gas;
 - (b) ovens which offer a 'microwave heating' function;
 - (c) small ovens;
 - (d) portable ovens;
 - (e) heat storage ovens;
 - (f) ovens which are heated with steam as a primary heating function;
 - (g) ovens designed for use only with gases of the 'third family' (propane and butane).

Article 2

Definitions

In addition to the definitions set out in Article 2 of Directive 2010/30/EU, the following definitions shall apply for the purposes of this Regulation:

- (1) 'oven' means an appliance or part of an appliance which incorporates one or more cavities using electricity and/or gas in which food is prepared by use of a conventional or fan-forced mode;
- (2) 'cavity' means the enclosed compartment in which the temperature can be controlled for preparation of food;
- (3) 'multi-cavity oven' means an oven with two or more cavities, each of which is heated separately;
- (4) 'small oven' means an oven where all cavities have a width and depth of less than 250 mm or a height less than 120 mm;
- (5) 'portable oven' means an oven with a product mass of less than 18 kilograms, provided it is not designed for built-in installations;
- (6) 'microwave heating' means heating of food using electromagnetic energy;
- (7) 'conventional mode' means the operation mode of an oven only using natural convection for circulation of heated air inside the cavity of the oven;
- (8) 'fan-forced mode' means a mode of an oven when a built-in fan circulates heated air inside the cavity of the oven;
- (9) 'cycle' means the period of heating a standardised load in a cavity of an oven under defined conditions;
- (10) 'cooker' means an appliance consisting of an oven and a hob using gas or electricity;
- (11) 'operation mode' means the status of an oven during use;
- (12) 'heat source' means the main energy form for heating an oven;
- (13) 'range hood' means an appliance, operated by a motor which it controls, intended to collect contaminated air from above a hob, or which includes a downdraft system intended for installation adjacent to cooking ranges, hobs and similar cooking products, that draws vapour down into an internal exhaust duct;
- (14) 'automatic functioning mode during the cooking period' means a condition in which the air flow of the range hood during the cooking period is automatically controlled through sensor(s), including as regards humidity, temperature, etc.;
- (15) 'fully automatic range hood' means a range hood in which the air flow and/or other functions are automatically controlled through sensor(s) during 24 hours including the cooking period;

⁽¹⁾ OJ L 316, 14.11.2012, p. 12.

- (16) 'best efficiency point' (BEP) means the range hood operating point with maximum fluid dynamic efficiency (FDE_{hood});
- (17) 'lighting efficiency' (LE_{hood}) means the ratio between the average illumination of the lighting system of the domestic range hood and the power of the lighting system in lux/W;
- (18) 'grease filtering efficiency' (GFE_{hood}) means the relative share of grease retained within the range hood grease filters;
- (19) 'off mode' means a condition in which the appliance is connected to the mains power source but is not providing any function or only provides an indication of off mode condition, or only provides functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2004/108/EC of the European Parliament and of the Council⁽¹⁾;
- (20) 'standby mode' means a condition where the appliance is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status display which may persist for an indefinite time;
- (21) 'reactivation function' means a function facilitating the activation of other modes, including the active mode, by remote switch including remote control, internal sensor, or timer to a condition providing additional functions, including the main function;
- (22) 'information or status display' means a continuous function providing information or indicating the status of the equipment on a display, including clocks;
- (23) 'end-user' means a consumer buying or expected to buy a product;
- (24) 'point of sale' means a location where appliances are displayed and/or offered for sale or hire;
- (25) 'equivalent model' means a model placed on the market with the same technical parameters as another model placed on the market under a different commercial code number by the same manufacturer or importer.
- (i) each domestic oven is supplied with (a) printed label(s) containing information in the format set out in point 1 of Annex III for each cavity of the oven;
- (ii) a product fiche, as set out in point A of Annex IV, is made available for domestic ovens placed on the market;
- (iii) the technical documentation, as set out in point A of Annex V, is made available on request to the authorities of the Member States;
- (iv) any advertisement for a specific model of domestic oven contains the energy efficiency class, if the advertisement discloses energy-related or price information;
- (v) any technical promotional material concerning a specific model of domestic oven which describes its specific technical parameters includes the energy efficiency class of that model;
- (vi) an electronic label in the format and containing the information set out in point 1 of Annex III is made available to dealers for each cavity of each domestic oven model;
- (vii) an electronic product fiche as set out in point A of Annex IV is made available to dealers for each domestic oven model;
- (b) for domestic range hoods:
- (i) each domestic range hood is supplied with a printed label containing information in the format set out in point 2 of Annex III;
- (ii) a product fiche, as set out in point B of Annex IV, is made available for domestic range hoods placed on the market;
- (iii) the technical documentation as set out in point B of Annex V, is made available on request to the authorities of the Member States;
- (iv) any advertisement for a specific model of domestic range hood contains the energy efficiency class, if the advertisement discloses energy-related or price information;
- (v) any technical promotional material concerning a specific model of domestic range hood which describes its specific technical parameters includes the energy efficiency class of that model;
- (vi) an electronic label in the format and containing the information set out in point 2 of Annex III is made available to dealers for each domestic range hood model;

Article 3

Responsibilities of suppliers and timetable

Suppliers shall ensure that:

- (1) as regards labels, fiches and technical documentation
- (a) for domestic ovens:

⁽¹⁾ Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC (OJ L 390, 31.12.2004, p. 24).

- (vii) an electronic product fiche as set out in point B of Annex IV is made available to dealers for each domestic range hood model;

(2) as regards efficiency classes:

- (a) for domestic ovens, the energy efficiency class of the cavity of the oven shall be determined in accordance with point 1 of Annex I, and point 1 of Annex II;
- (b) for domestic range hoods:
- (i) the energy efficiency classes shall be determined in accordance with point 2(a) of Annex I and point 2.1 of Annex II;
- (ii) the fluid dynamic efficiency classes shall be determined in accordance with point 2(b) of Annex I and point 2.2 of Annex II;
- (iii) the lighting efficiency classes shall be determined in accordance with point 2(c) of Annex I and point 2.3 of Annex II;
- (iv) the grease filtering efficiency classes shall be determined in accordance with point 2(d) of Annex I and point 2.4 of Annex II;

(3) as regards formats of the labels:

- (a) for domestic ovens, the format of the label for the cavity of the oven shall be as set out in point 1 of Annex III, for appliances placed on the market from 1 January 2015;
- (b) for domestic range hoods, the format of the label shall be as set out in point 2 of Annex III, according to the following timetable:
- (i) for domestic range hoods placed on the market from 1 January 2015 with energy efficiency classes A, B, C, D, E, F and G, labels shall be in accordance with point 2.1.1 of Annex III (Label 1) or, where suppliers deem appropriate, with point 2.1.2 of that Annex (Label 2);
- (ii) for domestic range hoods placed on the market from 1 January 2016 with energy efficiency classes A⁺, A, B, C, D, E and F, labels shall be in accordance with point 2.1.2 of Annex III (Label 2) or, where suppliers deem appropriate, with point 2.1.3 of that Annex (Label 3);
- (iii) for domestic range hoods placed on the market from 1 January 2018 with energy efficiency classes A⁺⁺, A⁺, A, B, C, D and E, labels shall be in accordance with point 2.1.3 of Annex III (Label 3) or, where suppliers deem appropriate, with point 2.1.4 of that Annex (Label 4);
- (iv) for domestic range hoods placed on the market from 1 January 2020 with energy efficiency classes A⁺⁺⁺, A⁺⁺, A⁺, A, B, C and D, labels shall be in accordance with point 2.1.4 of Annex III (Label 4).

Article 4

Responsibilities of dealers

Dealers shall ensure that:

(1) for domestic ovens:

- (a) each oven presented at the point of sale carries the label for each cavity provided by suppliers in accordance with Article 3(1)(a)(i) displayed on the front or top of the appliance, or in the immediacy of the appliance, so as to be clearly visible and identifiable as the label belonging to the model without having to read the brand name and model number on the label;
- (b) ovens offered for sale or hire 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 Part A of Annex VI to this Regulation, except where the offer is made through the internet in which case the provisions of Annex VII shall apply;
- (c) any advertisement for any form or medium of distance selling and marketing concerning a specific model of oven contains a reference to the energy efficiency class, if the advertisement discloses energy-related or price information;
- (d) any technical promotional material concerning a specific model which describes the technical parameters of an oven includes the energy efficiency class of the model;

(2) for domestic range hoods:

- (a) each domestic range hood presented at the point of sale is accompanied by the label provided by suppliers in accordance with Article 3(1)(b)(i) displayed on the front or top of the appliance, or in the immediacy of the appliance, so as to be clearly visible and identifiable as the label belonging to the model without having to read the brand name and model number on the label;
- (b) domestic range hoods offered for sale or hire 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 Part B of Annex VI to this Regulation, except where the offer is made through the internet in which case the provisions of Annex VII shall apply;
- (c) any advertisement for any form or medium of distance selling and marketing concerning a specific model of domestic range hood contains a reference to the energy efficiency class, if the advertisement discloses energy-related or price information;
- (d) any technical promotional material concerning a specific model which describes the technical parameters of a domestic range hood includes the energy efficiency class of the model.

*Article 5***Measurement and calculation methods**

The information to be provided under Articles 3 and 4 shall be obtained by reliable, accurate and reproducible measurement procedures, which take into account the recognised state-of-the-art calculation and measurement methods.

*Article 6***Verification procedure for market surveillance purposes**

When performing the market surveillance checks for compliance with requirements set out in this Regulation, the Member States' authorities shall apply the verification procedure described in Annex VIII.

*Article 7***Review**

The Commission shall review this Regulation in the light of technological progress no later than 1 January 2021.

*Article 8***Repeal**

Commission Directive 2002/40/EC shall be repealed from 1 January 2015.

*Article 9***Transitional provisions**

1. Domestic ovens which comply with the provisions of this Regulation and which are placed on the market or offered for sale, hire or hire-purchase before 1 January 2015 shall be regarded as complying with the requirements of Directive 2002/40/EC.

2. From 1 January to 1 April 2015, dealers may apply Article 4(1)(b) to specific ovens that fall under that provision.

3. From 1 January to 1 April 2015, dealers may apply Article 4(2)(b) to specific range hoods that fall under that provision.

*Article 10***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 1 January 2015. However, Article 3(1)(a)(iv) and (v), Article 3(1)(b)(iv) and (v), Article 4(1)(b), (c) and (d), and Article 4(2)(b), (c) and (d) shall apply from 1 April 2015.

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

Done at Brussels, 1 October 2013.

For the Commission

The President

José Manuel BARROSO

ANNEX I

Efficiency classes**1. DOMESTIC OVENS**

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 ovens shall be determined in accordance with point 1 of Annex II.

Table 1

Energy efficiency classes of domestic ovens

Energy Efficiency Class	Energy Efficiency Index (EEI _{cavity})
A+++ (most efficient)	$EEI_{cavity} < 45$
A++	$45 \leq EEI_{cavity} < 62$
A+	$62 \leq EEI_{cavity} < 82$
A	$82 \leq EEI_{cavity} < 107$
B	$107 \leq EEI_{cavity} < 132$
C	$132 \leq EEI_{cavity} < 159$
D (least efficient)	$EEI_{cavity} \geq 159$

2. DOMESTIC RANGE HOODS

(a) 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 Index (EEI_{hood}) of domestic range hoods shall be calculated in accordance with point 2.1 of Annex II.

Table 2

Energy efficiency classes of domestic range hoods

Energy Efficiency Class	Energy Efficiency Index (EEI _{hood})			
	Label 1	Label 2	Label 3	Label 4
A+++ (most efficient)				$EEI_{hood} < 30$
A++			$EEI_{hood} < 37$	$30 \leq EEI_{hood} < 37$
A+		$EEI_{hood} < 45$	$37 \leq EEI_{hood} < 45$	$37 \leq EEI_{hood} < 45$
A	$EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$
B	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$
C	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$
D	$85 \leq EEI_{hood} < 100$	$85 \leq EEI_{hood} < 100$	$85 \leq EEI_{hood} < 100$	$EEI_{hood} \geq 85$
E	$100 \leq EEI_{hood} < 110$	$100 \leq EEI_{hood} < 110$	$EEI_{hood} \geq 100$	
F	$110 \leq EEI_{hood} < 120$	$EEI_{hood} \geq 110$		
G (least efficient)	$EEI_{hood} \geq 120$			

- (b) The fluid dynamic efficiency classes of a domestic range hood shall be determined in accordance with its Fluid Dynamic Efficiency (FDE_{hood}) as in the following Table 3. The Fluid Dynamic Efficiency of domestic range hoods shall be determined in accordance with point 2.2 of Annex II.

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)	$FDE_{hood} \leq 4$

- (c) The lighting efficiency classes of a domestic range hood shall be determined in accordance with its Lighting Efficiency (LE_{hood}) as in the following Table 4. The Lighting Efficiency of domestic range hoods shall be determined in accordance with point 2.3 of Annex II.

Table 4

Lighting Efficiency classes for domestic range hoods

Lighting Efficiency Class	Lighting Efficiency (LE_{hood})
A (most efficient)	$LE_{hood} > 28$
B	$20 < LE_{hood} \leq 28$
C	$16 < LE_{hood} \leq 20$
D	$12 < LE_{hood} \leq 16$
E	$8 < LE_{hood} \leq 12$
F	$4 < LE_{hood} \leq 8$
G (least efficient)	$LE_{hood} \leq 4$

- (d) The grease filtering efficiency classes of a domestic range hood shall be determined in accordance with its Grease Filtering Efficiency (GFE_{hood}) as in the following Table 5. The Grease Filtering Efficiency of domestic range hoods shall be determined in accordance with point 2.4 of Annex II.

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)	$GFE_{hood} \leq 45$

ANNEX II

Measurements and calculations

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using a reliable, accurate and reproducible method that take into account the generally recognised state-of-the-art measurement and calculation methods, including harmonised standards the reference numbers of which have been published for the purpose in the *Official Journal of the European Union*. They shall meet the technical definitions, conditions, equations and parameters set out in this Annex.

1. DOMESTIC OVENS

The energy consumption of a cavity of a domestic oven shall be measured for one standardised cycle, in a conventional mode and in a fan-forced mode, if available, by heating a standardised load soaked with water. It shall be verified that the temperature inside the oven cavity reaches the temperature setting of the thermostat and/or the oven control display within the duration of the test cycle. The energy consumption per cycle corresponding to the best performing mode (conventional mode or fan-forced mode) shall be used in the following calculations.

For each cavity of a domestic oven, the Energy Efficiency Index (EEI_{cavity}) shall be calculated according to the following formulas:

for domestic electric ovens:

$$EEI_{cavity} = \frac{EC_{electric\ cavity}}{SEC_{electric\ cavity}} \times 100$$

$$SEC_{electric\ cavity} = 0,0042 \times V + 0,55 \text{ (in kWh)}$$

for domestic gas ovens:

$$EEI_{cavity} = \frac{EC_{gas\ cavity}}{SEC_{gas\ cavity}} \times 100$$

$$SEC_{gas\ cavity} = 0,044 \times V + 3,53 \text{ (in MJ)}$$

Where:

- EEI_{cavity} = Energy Efficiency Index for each cavity of a domestic oven, in %, rounded to the first decimal place,
- $SEC_{electric\ cavity}$ = Standard Energy Consumption (electricity) required to heat a standardised load in a cavity of an electric heated domestic oven during a cycle, expressed in kWh, rounded to the second decimal place,
- $SEC_{gas\ cavity}$ = Standard Energy Consumption required to heat a standardised load in a cavity of a domestic gas-fired oven during a cycle, expressed in MJ, rounded to the second decimal place,
- V = Volume of the cavity of the domestic oven in litres (L), rounded to the nearest integer,
- $EC_{electric\ cavity}$ = Energy consumption required to heat a standardised load in a cavity of an electric heated domestic oven during a cycle, expressed in kWh, rounded to the second decimal place,
- $EC_{gas\ cavity}$ = Energy consumption required to heat a standardised load in a gas-fired cavity of a domestic oven during a cycle, expressed in MJ, rounded to the second decimal place.

2. DOMESTIC RANGE HOODS**2.1. Calculation of the Energy Efficiency Index (EEI_{hood})**

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

$$EEI_{hood} = \frac{AEC_{hood}}{SAEC_{hood}} \times 100$$

and is rounded to the first decimal place.

Where:

- $SAEC_{hood}$ is the Standard Annual Energy consumption of the domestic range hood in kWh/a, rounded to the first decimal place,
- AEC_{hood} is the Annual Energy Consumption of the domestic range hood in kWh/a, rounded to the first decimal place.

The Standard Annual Energy Consumption ($SAEC_{hood}$) of a domestic range hood shall be calculated as:

$$SAEC_{hood} = 0,55 \times (W_{BEP} + W_L) + 15,3$$

Where:

- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, in Watt and rounded to the first decimal place,
- W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.

The Annual Energy Consumption (AEC_{hood}) of a domestic range hood is calculated as:

- (i) for the fully automatic domestic range hoods:

$$AEC_{hood} = \left[\frac{(W_{BEP} \times t_H \times f) + (W_L \times t_L)}{60 + 1\,000} + \frac{P_o \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000} + \frac{P_s \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000} \right] \times 365$$

- (ii) for all other domestic range hoods:

$$AEC_{hood} = \frac{[W_{BEP} \times (t_H \times f) + W_L \times t_L]}{60 \times 1\,000} \times 365$$

Where:

- 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 electric power input in off-mode of the domestic range hood, in Watt and rounded to the second decimal place,
- P_s is the electric power input in standby mode of the domestic range hood, in Watt and rounded to the second decimal place,
- f is the time increase factor, calculated and rounded to the first decimal place, as:

$$f = 2 - (FDE_{hood} \times 3,6)/100$$

2.2. 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:

$$FDE_{hood} = \frac{Q_{BEP} \times P_{BEP}}{3\,600 \times W_{BEP}} \times 100$$

Where:

- Q_{BEP} is the flow rate of the domestic range hood at best efficiency point, expressed in m³/h and rounded to the first decimal place,
- P_{BEP} is the static pressure difference of the domestic range hood at best efficiency point, expressed in Pa and rounded to the nearest integer,
- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, expressed in Watt and rounded to the first decimal place.

2.3. 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 electric power input of the lighting system. It shall be calculated in lux per Watt and rounded at the nearest integer, as:

$$LE_{hood} = \frac{E_{middle}}{W_L}$$

Where:

- E_{middle} is the average illumination of the lighting system on the cooking surface measured under standard conditions, in lux and rounded to the nearest integer,
- W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.

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

The Grease Filtering Efficiency (GFE_{hood}) of a domestic range hood means the relative amount of grease retained within the range hood grease filters. It shall be calculated and rounded to the first decimal place as:

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

Where:

- w_g = the mass of oil in the grease filter, including all detachable coverings, in g and rounded to the first decimal place,
- w_r = the mass of oil retained in the airways of the range hood, in g and rounded to the first decimal place,
- w_t = the mass of oil retained in the absolute filter, in g and rounded to the first decimal place.

2.5. Noise

The Noise Value (in dB) is measured as the airborne acoustical A-weighted sound power emissions (weighted average value – L_{WA}) of a domestic range hood at the highest setting for normal use, rounded to the nearest integer.

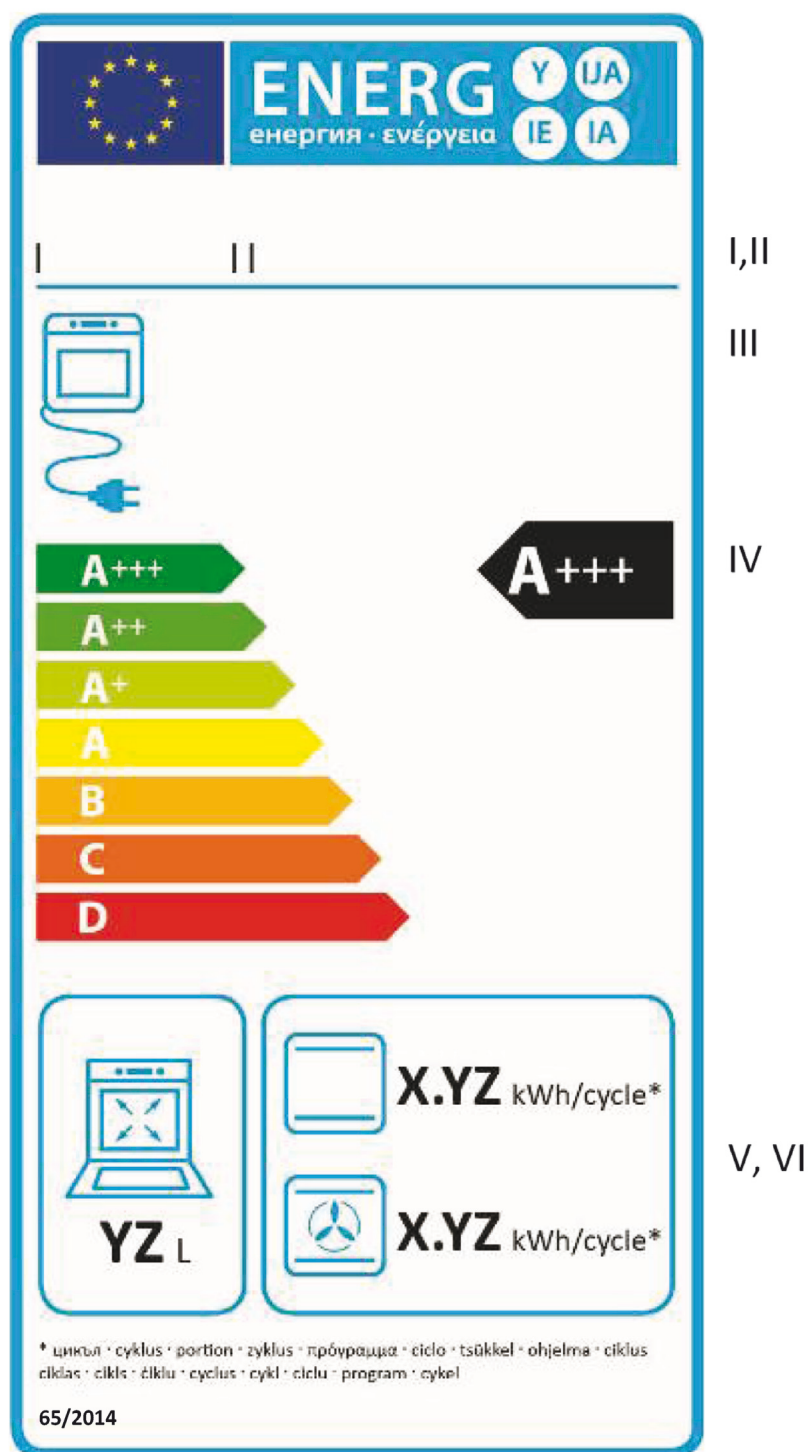
ANNEX III

The label

1. LABEL FOR DOMESTIC OVENS

1.1. Domestic electric ovens

1.1.1. Label presentation — for each cavity of a domestic electric oven



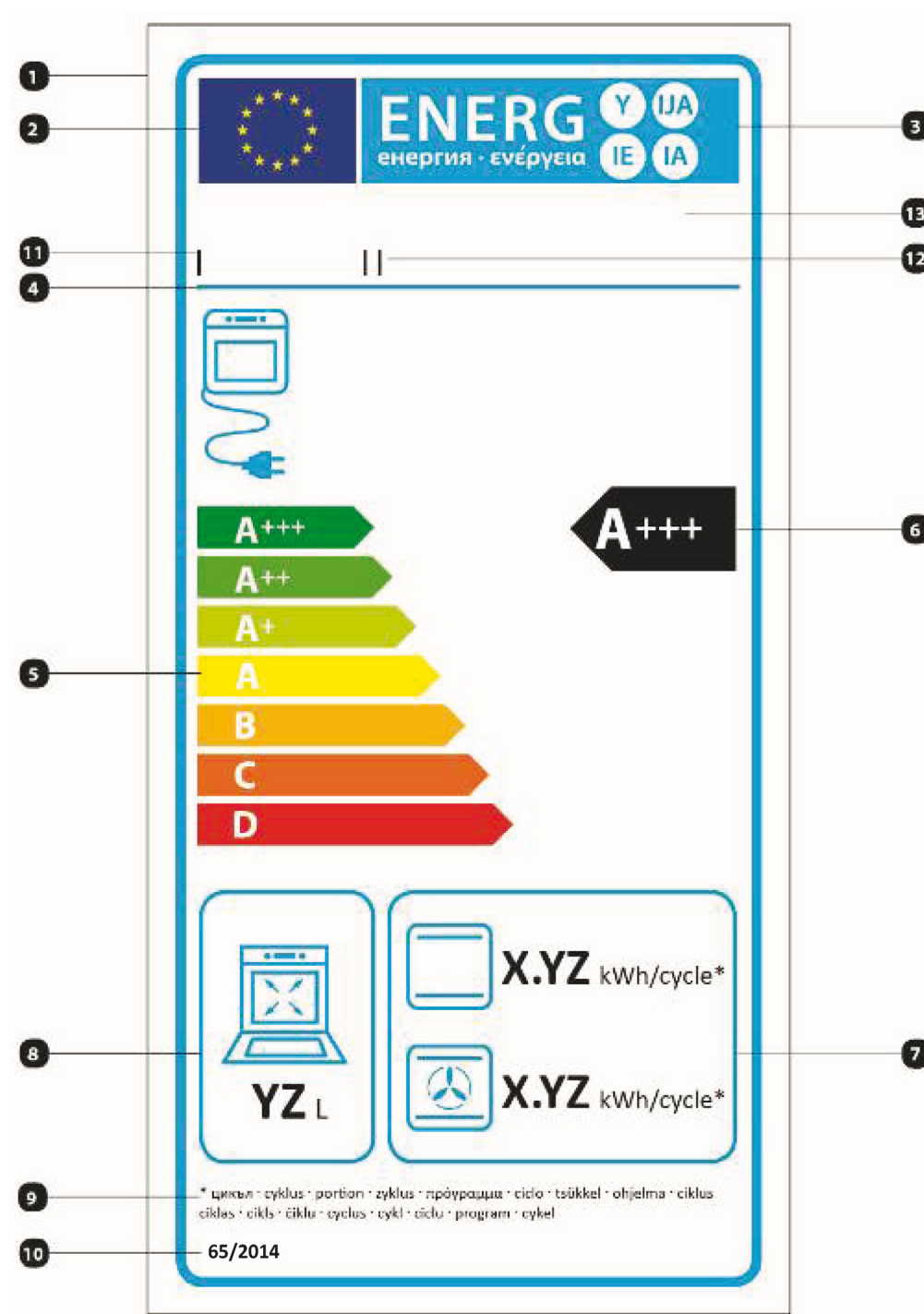
1.1.2. *Label information — domestic electric ovens*

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 with the same trade mark or supplier's name;
- III. Energy source of the domestic oven;
- IV. The energy efficiency class of the cavity determined in accordance with Annex I. 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, rounded to the nearest integer;
- VI. Energy consumption per cycle expressed in kWh/cycle (electricity consumption) for the heating function(s) (conventional and if available the forced air convection) of the cavity based on standard load determined in accordance with the test procedures, rounded to the second decimal place ($EC_{\text{electric cavity}}$).

1.1.3. *Label design — domestic electric ovens*

The design of the label for each cavity of a domestic electric oven shall be as in the following figure:



Whereby:

- (i) The label shall be at least 85 mm wide and 170 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 **Border stroke:** 4 pt — colour: cyan 100 % — round corners: 3 mm.
- ❷ **EU logo:** colours: X-80-00-00 and 00-00-X-00.
- ❸ **Energy logo:** colour: X-00-00-00; pictogram as depicted: EU logo + energy label: width: 70 mm, height: 14 mm.
- ❹ **Sub-logos border:** 1,5 pt — colour: cyan 100 % — length: 70 mm.
- ❺ **Scale of energy classes**
 - **Arrow:** height: 5,5 mm, gap: 1 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

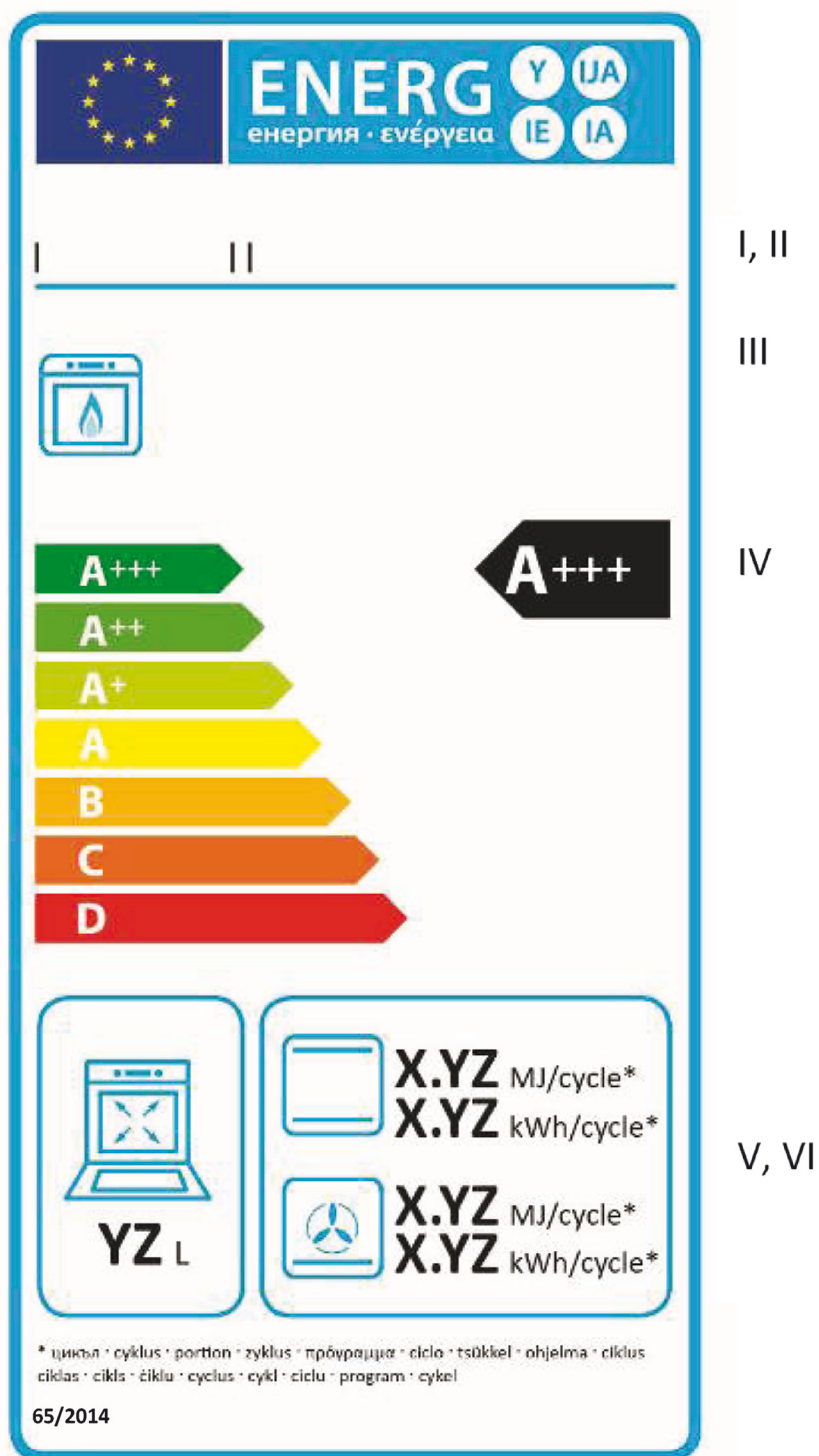
Fifth class: 00-30-X-00

Sixth class: 00-70-X-00

Last class: 00-X-X-00
 - **Text:** Calibri bold 18 pt, capitals and white; '+' symbol: Calibri bold 12 pt, white, aligned on a single row.
- ❻ **Energy efficiency class**
 - **Arrow:** width: 20 mm, height: 10 mm, 100 % black;
 - **Text:** Calibri bold 24 pt, capitals and white; '+' symbol: Calibri bold 18 pt, white, aligned on a single row.
- ❼ **Energy consumption per cycle**
 - **Border:** 1,5 pt — colour: cyan 100 % — round corners: 3 mm.
 - **Value:** Calibri bold 19 pt, 100 % black; and Calibri regular 10 pt, 100 % black.
- ❽ **Volume**
 - **Border:** 1,5 pt — colour: cyan 100 % — round corners: 3 mm.
 - **Value:** Calibri bold 20 pt, 100 % black; and Calibri regular 10 pt, 100 % black.
- ❾ **Asterisk:** Calibri regular 6 pt, 100 % black.
- ❿ **Numbering of the Regulation:** Calibri bold 10 pt, 100 % black
- ⓫ **Supplier's name or trademark**
- ⓬ **Supplier's model identifier**
- ⓭ The suppliers' name or trade mark and model identifier should fit in a space of 70 × 13 mm.

1.2. Domestic gas ovens

1.2.1. Label presentation — for each cavity of a domestic gas oven



1.2.2. Label information

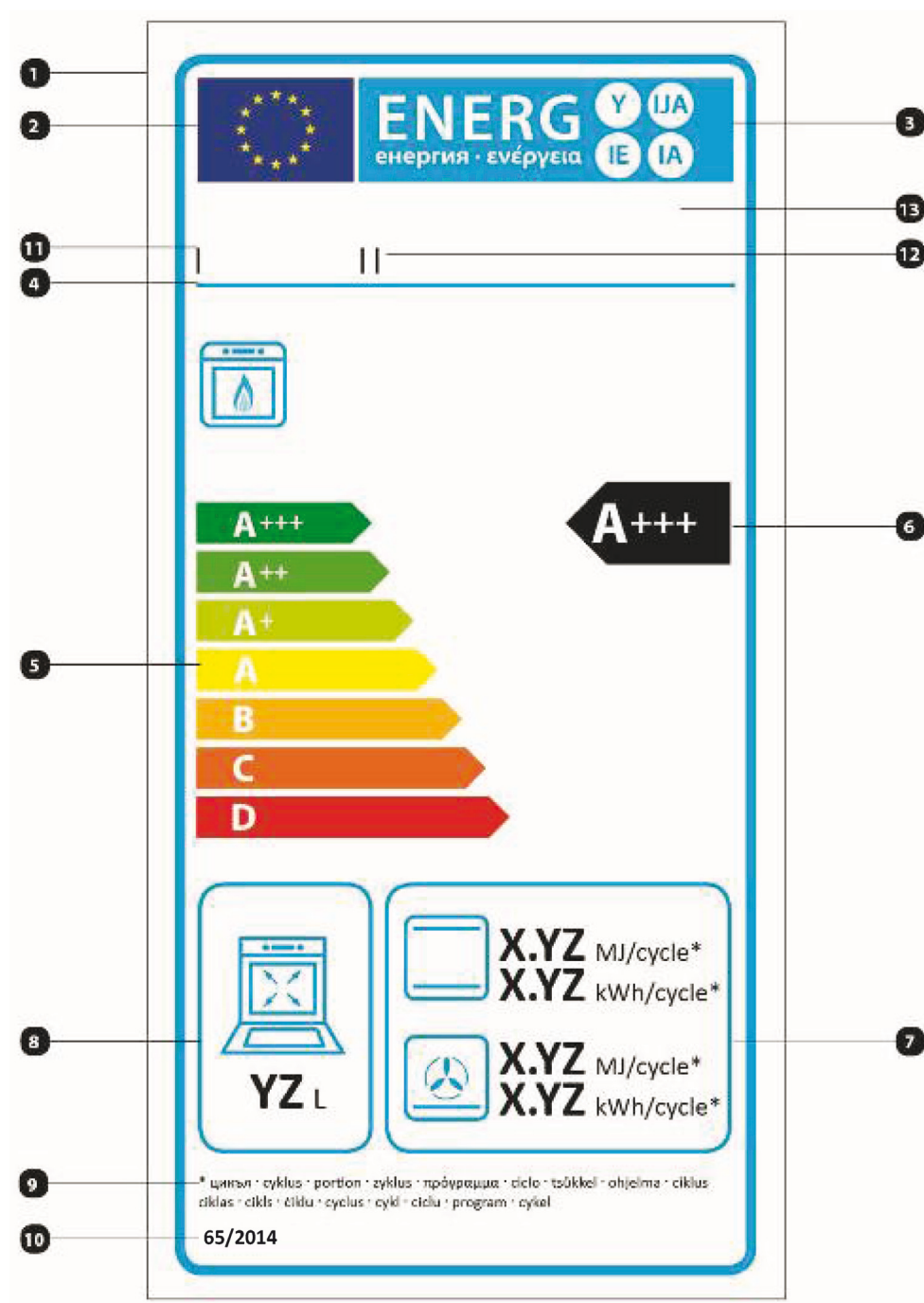
The following information shall be included in the label:

- 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 with the same trade mark or supplier's name;
- III. Energy source of the domestic oven;

- IV. The energy efficiency class of the cavity determined in accordance with Annex I. 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, rounded to the nearest integer;
- VI. Energy consumption per cycle expressed in MJ/cycle and in kWh/cycle ⁽¹⁾ (gas consumption) for the heating function(s) (conventional and if available the forced air convection) of the cavity based on standard load determined in accordance with the test procedures, rounded to the second decimal place ($EC_{gas\ cavity}$).

1.2.3. Label design — domestic gas ovens

The design of the label for each cavity of a domestic gas oven shall be as in the following figure:

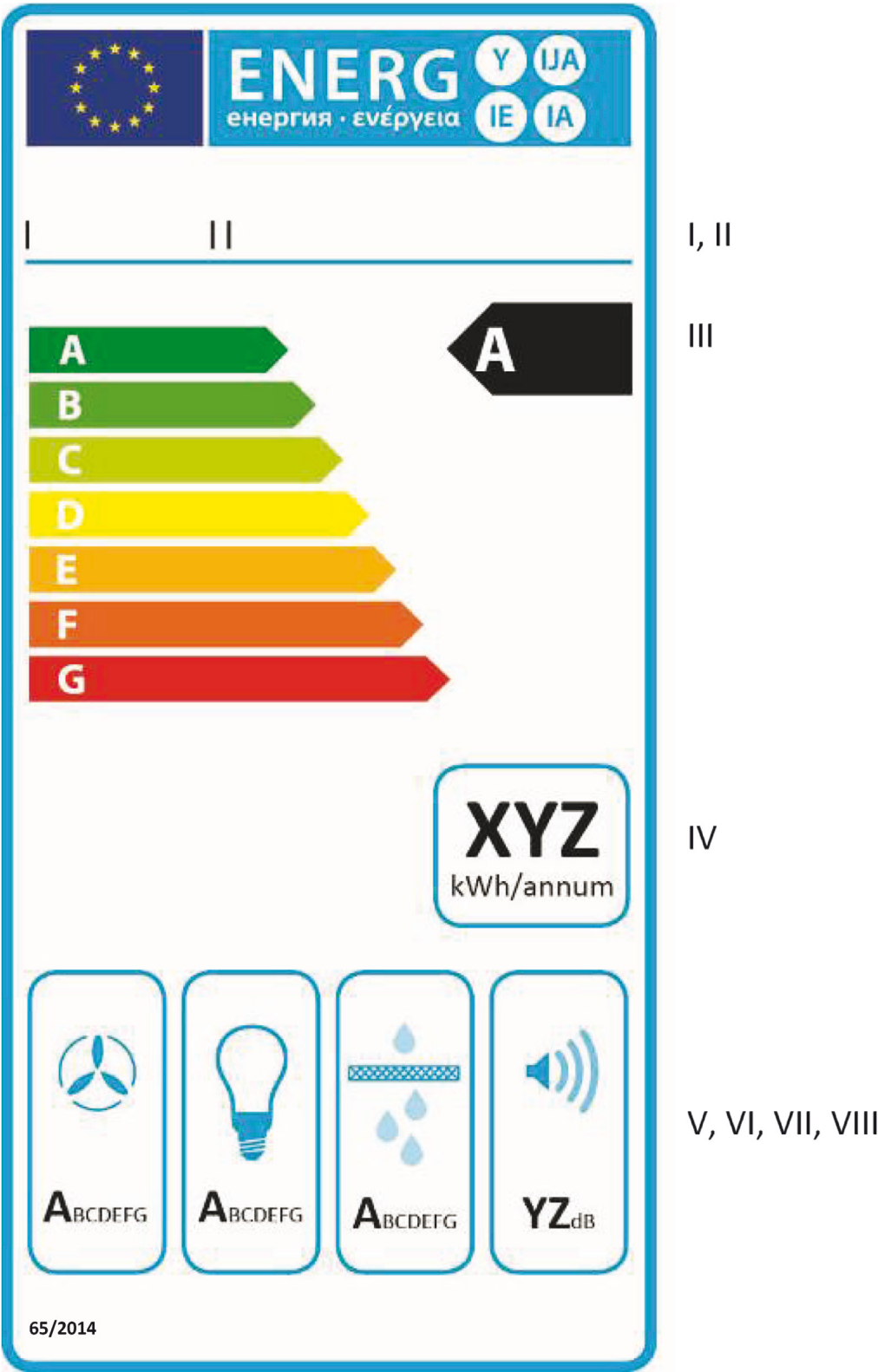


⁽¹⁾ 1 kWh/cycle = 3,6 MJ/cycle.

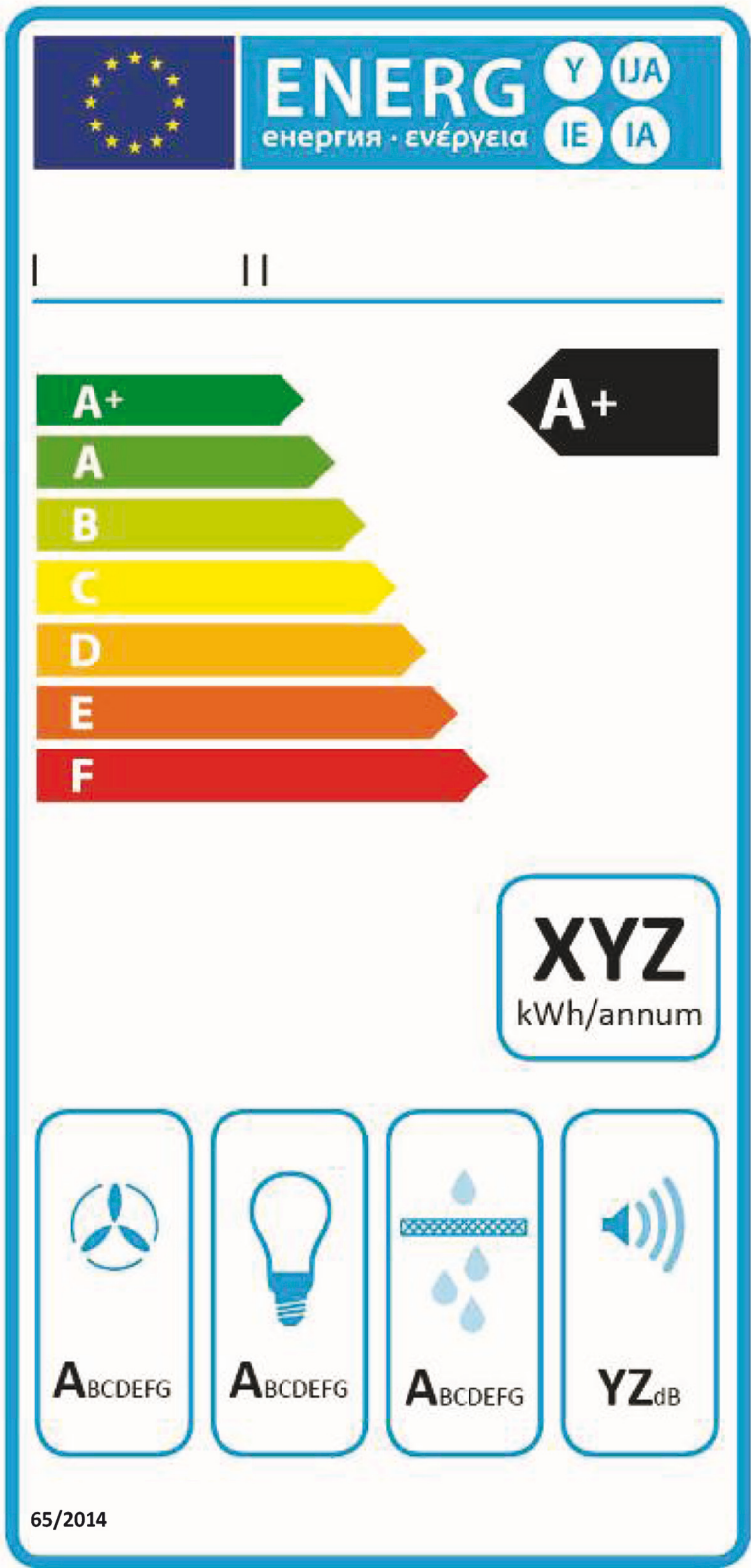
Whereby:

- (i) The label shall be at least 85 mm wide and 170 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 **Border stroke:** 4 pt — colour: cyan 100 % — round corners: 3 mm.
 - ❷ **EU logo:** colours: X-80-00-00 and 00-00-X-00.
 - ❸ **Energy logo:** colour: X-00-00-00; pictogram as depicted: EU logo + energy label: width: 70 mm, height: 14 mm.
 - ❹ **Sub-logos border:** 1,5 pt — colour: cyan 100 % — length: 70 mm.
 - ❺ **Scale of energy classes**
 - **Arrow:** height: 5,5 mm, gap: 1 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: 00-X-X-00
 - **Text:** Calibri bold 18 pt, capitals and white; '+' symbol: Calibri bold 12 pt, white, aligned on a single row.
 - ❻ **Energy efficiency class**
 - **Arrow:** width: 20 mm, height: 10 mm, 100 % black;
 - **Text:** Calibri bold 24 pt, capitals and white; '+' symbol: Calibri bold 18 pt, white, aligned on a single row.
 - ❼ **Energy consumption per cycle**
 - **Border:** 1,5 pt — colour: cyan 100 % — round corners: 3 mm.
 - **Value:** Calibri bold 19 pt, 100 % black; and Calibri regular 10 pt, 100 % black.
 - ❽ **Volume**
 - **Border:** 1,5 pt — colour: cyan 100 % — round corners: 3 mm.
 - **Value:** Calibri bold 20 pt, 100 % black; and Calibri regular 10 pt, 100 % black.
 - ❾ **Asterisk:** Calibri regular 6 pt, 100 % black.
 - ❿ **Numbering of the Regulation:** Calibri bold 10 pt, 100 % black
 - ⓫ **Supplier's name or trademark**
 - ⓬ **Supplier's model identifier**
 - ⓭ The suppliers' name or trade mark and model identifier should fit in a space of 70 × 13 mm.

- 2. LABEL FOR DOMESTIC RANGE HOODS
- 2.1. Label formats
- 2.1.1. Domestic range hoods in energy efficiency classes A to G (label 1)



2.1.2. Domestic range hoods in energy efficiency classes A+ to F (label 2)



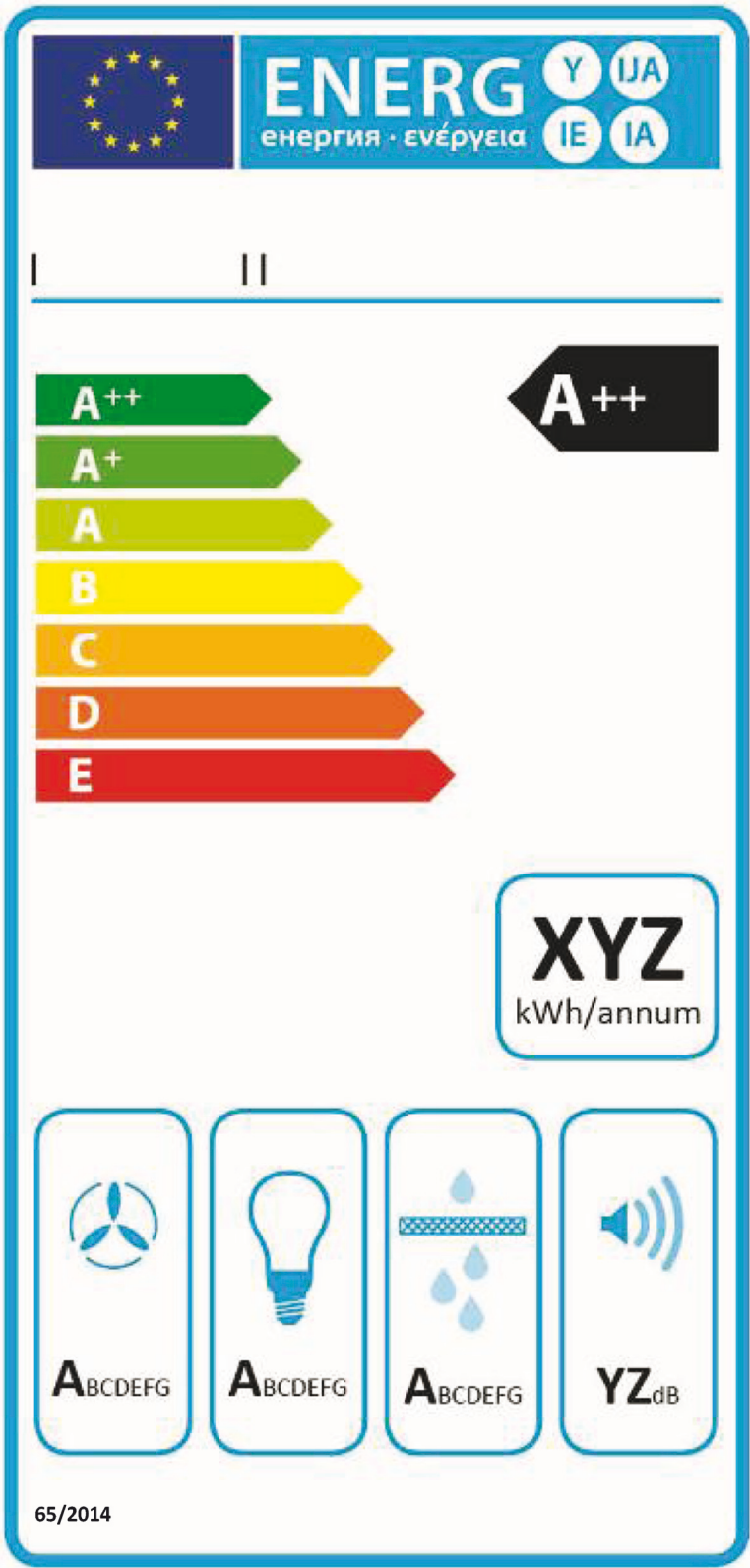
I, II

III

IV

V, VI, VII, VIII

2.1.3. Domestic range hoods in energy efficiency classes A++ to E (label 3)



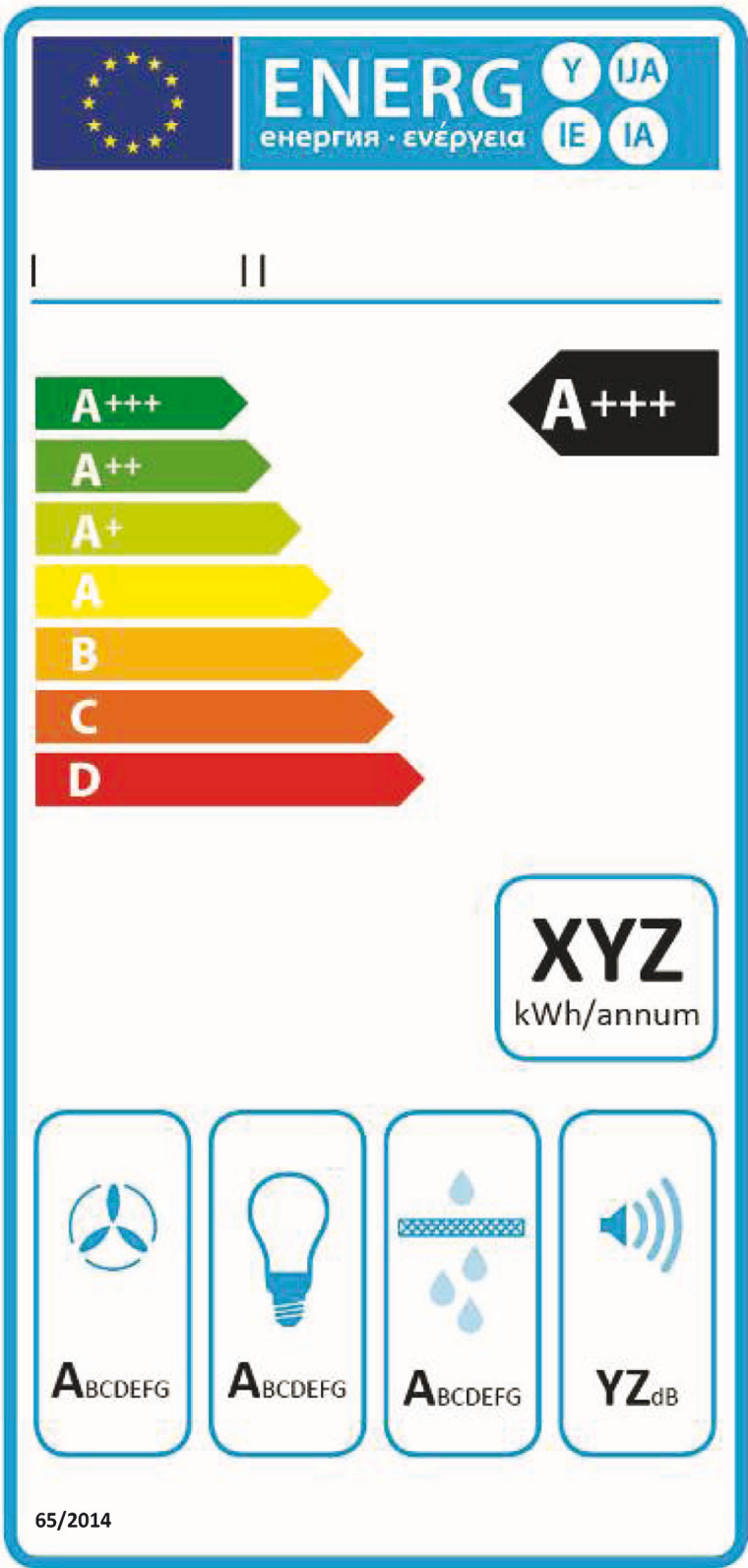
I, II

III

IV

V, VI, VII, VIII

2.1.4. Domestic range hoods in energy efficiency classes A+++ to D (label 4)



2.2. Label information — domestic range hoods

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 with the same trade mark or supplier's name;
- III. The energy efficiency class of the domestic range hood, determined in accordance with Annex I. The head of the arrow containing the energy efficiency class of the domestic 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 II, in kWh rounded to the nearest integer;
- V. The Fluid Dynamic Efficiency class determined in accordance with Annex I;
- VI. The Lighting Efficiency class determined in accordance with Annex I;
- VII. The Grease Filtering Efficiency class determined in accordance with Annex I;
- VIII. The Noise Value, determined in accordance with point 2.5 of Annex II, rounded to the nearest integer.

(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 **Border stroke:** 3 pt — colour: Cyan 100 % — round corners: 2 mm.
- ❷ **EU logo:** colours: X-80-00-00 and 00-00-X-00.
- ❸ **Energy logo:** colour: X-00-00-00; pictogram as depicted: EU logo + energy label: width: 51 mm, height: 10 mm.
- ❹ **Sub-logos border:** 1 pt — colour: Cyan 100 % — length: 51 mm.
- ❺ **Scale of energy classes**
 - **Arrow:** height: 4 mm, gap: 0,75 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: 00-X-X-00
 - **Text:** Calibri bold 10 pt, capitals and white; '+' symbol: Calibri bold 7 pt, white, aligned on a single row.
- ❻ **Energy efficiency class**
 - **Arrow:** width: 15 mm, height: 8 mm, 100 % black;
 - **Text:** Calibri bold 17 pt, capitals and white; '+' symbol: Calibri bold 12 pt, white, aligned on a single row.
- ❼ **Annual energy consumption**
 - **Border:** 1 pt — colour: cyan 100 % — round corners: 2,5 mm.
 - **Value:** Calibri bold 21 pt, 100 % black; and Calibri regular 8 pt, 100 % black.
- ❽ **Fluid Dynamic Efficiency**
 - Pictogram as depicted
 - **Border:** 1 pt — colour: cyan 100 % — round corners: 2,5 mm.
 - **Value:** Calibri regular 6 pt, 100 % black; and Calibri bold 11,5 pt, 100 % black.
- ❾ **Lighting Efficiency**
 - Pictogram as depicted
 - **Border:** 1 pt — colour: cyan 100 % — round corners: 2,5 mm.
 - **Value:** Calibri regular 6 pt, 100 % black; and Calibri bold 11,5 pt, 100 % black.
- ❿ **Grease Filtering Efficiency**
 - Pictogram as depicted
 - **Border:** 1 pt — colour: cyan 100 % — round corners: 2,5 mm.
 - **Value:** Calibri regular 10 pt, 100 % black; and Calibri bold 14 pt, 100 % black.

11 Noise level

— **Pictogram as depicted**

— **Border:** 1 pt — colour: cyan 100 % — round corners: 2,5 mm.

— **Value:** Calibri regular 6 pt, 100 % black; and Calibri bold 11,5 pt, 100 % black.

12 Numbering of the Regulation: Calibri bold 8 pt, 100 % black**13 Supplier's name or trademark****14 Supplier's model identifier****15** The suppliers' name or trade mark and model identifier should fit in a space of 51×9 mm.

ANNEX IV

Fiche

A. FICHE FOR DOMESTIC OVENS

1. The information in the product fiche of the domestic ovens referred to in Article 3(1)(a)(ii) shall be given as defined below and in the order specified below, and shall be included in the product brochure or other literature provided with the product:
 - (a) supplier's name or trade mark;
 - (b) supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific domestic oven 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 (point 1 of Annex III);
 - (c) the energy efficiency index (EEl_{cavity}) for each cavity of the model calculated in accordance with point 1 of Annex II and rounded to the first decimal place; the declared energy efficiency index shall not exceed the index reported in the technical documentation in Annex V;
 - (d) the energy efficiency class of the model for each cavity as defined in Table 1 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (e) 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 (electric and gas ovens) and in MJ (gas ovens), rounded to two decimal place); the declared value shall not be lower than the value reported in the technical documentation in Annex V;
 - (f) the number of cavities; the heat source(s) per cavity; and the volume of each cavity.
2. Without prejudice to any requirements under the Community eco-label scheme, where a model has been granted a European Union eco-label under Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 ⁽¹⁾, a copy of the eco-label may be added.
3. One fiche may cover a number of domestic oven 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 of each cavity (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.

B. FICHE FOR DOMESTIC RANGE HOODS

1. The information in the product fiche of the domestic range hoods referred to in Article 3(1)(b)(ii) shall be given as defined below and in the order specified below, and shall be included in the product brochure or other literature provided with the product:
 - (a) supplier's name or trade mark;
 - (b) supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific domestic range hood 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 (point 2 of Annex III);
 - (c) the Annual Energy Consumption (AEC_{hood}) calculated according to point 2 of Annex II, in kWh/a and rounded to the first decimal place; the declared value shall not be lower than the value reported in the technical documentation in Annex V;
 - (d) the Energy Efficiency class, as defined in Table 2 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (e) the Fluid Dynamic Efficiency (FDE_{hood}) calculated according to point 2 of Annex II, rounded to the first decimal place; the declared value shall not be higher than the value reported in the technical documentation in Annex V;
 - (f) the Fluid Dynamic Efficiency class, as defined in Table 3 of Annex I; the declared class shall not be better than the class reported in the technical documentation in Annex V;

⁽¹⁾ OJ L 27, 30.1.2010, p. 1.

- (g) the Lighting Efficiency (LE_{hood}) calculated according to point 2 of Annex II, 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 V;
 - (h) the Lighting Efficiency class, as defined in Table 4 of Annex I, the declared class shall not be better than the class reported in the technical documentation in Annex V;
 - (i) the Grease Filtering Efficiency calculated according to point 2 of Annex II, 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 V;
 - (j) the Grease Filtering Efficiency class, as defined in Table 5 of Annex I; the declared class shall not be better than the class reported in the technical documentation in Annex V;
 - (k) the air flow (in m^3/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 V;
 - (l) if available, the air flow (in m^3/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 V;
 - (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 V;
 - (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 V;
 - (o) if applicable, the power consumption in off mode (P_o), 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 (P_s), 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 domestic range hood 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 V

Technical documentation**A. TECHNICAL DOCUMENTATION FOR DOMESTIC OVENS**

1. The technical documentation referred to in Article 3(1)(a)(iii) 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 oven 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 (point 1 of Annex III);
 - (c) technical parameters for measurements as follows:
 - (i) the number of cavities; the volume of each cavity; the heat source(s) per cavity; the heating function(s) (conventional and/or the forced air convection) per cavity;
 - (ii) 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 (electric and gas ovens) and in MJ (gas ovens), rounded to the second decimal place;
 - (iii) the energy efficiency index (EEI_{cavity}) for each cavity of the domestic oven calculated in accordance with point 1 of Annex II and rounded to the first decimal place;
 - (iv) the energy efficiency class for each cavity of the domestic oven as defined in Table 1 of Annex I;
 - (d) a copy of the calculation and the results of the calculations performed in accordance with Annex II;
 - (e) where appropriate, the references of the harmonised standards applied;
 - (f) where appropriate, the other technical standards and specifications used;
 - (g) identification and signature of the person empowered to bind the supplier.
2. Suppliers may include additional information at the end of the above list.

B. TECHNICAL DOCUMENTATION FOR DOMESTIC RANGE HOODS

1. The technical documentation referred to in Article 3(1)(b)(iii) 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 range hood 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 (point 2 of Annex III);
 - (c) technical parameters for measurements as follows:
 - (1) the Energy Efficiency Index (EEI_{hood}) calculated in accordance with point 2 of Annex II and rounded to the first decimal place;
 - (2) the Energy Efficiency class, as defined in Table 2 of Annex I;
 - (3) the Annual Energy Consumption (AEC_{hood}) calculated in accordance with point 2 of Annex II, in kWh/a and rounded to the first decimal place;
 - (4) the time increase factor (f), in accordance with point 2 of Annex II and rounded to the first decimal place;
 - (5) the Fluid Dynamic Efficiency (FDE_{hood}) calculated in accordance with point 2 of Annex II and rounded to the first decimal place;
 - (6) the Fluid Dynamic Efficiency class, as defined in Table 3 of Annex I;
 - (7) the measured flow rate of the domestic range hood at the best efficiency point (Q_{BEP}), in m³/h and rounded to the first decimal place;

- (8) the measured value of the static pressure difference of the domestic range hood at the best efficiency point (P_{BEP}), in Pa and rounded to the nearest integer;
 - (9) the measured value of the electric power input of the domestic range hood at the best efficiency point (W_{BEP}), in Watt and rounded to the first decimal place;
 - (10) the average illumination of the lighting system on the cooking surface (E_{middle}), in lux and rounded to the nearest integer;
 - (11) the nominal power consumption of the lighting system on the cooking surface (W_L), in Watt and rounded to the first decimal place;
 - (12) the measured value of the Lighting Efficiency (LE_{hood}) calculated according to point 2 of Annex II, in lux/Watt and rounded to the nearest integer;
 - (13) the Lighting Efficiency class, as defined in Table 4 of Annex I;
 - (14) the measured value of the Grease Filtering Efficiency (GFE_{hood}) calculated according to point 2 of Annex II and rounded to the first decimal place;
 - (15) the Grease Filtering Efficiency class, as defined in Table 5 of Annex I;
 - (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 and rounded to the nearest integer;
 - (19) if present, the airborne acoustical A-weighted sound power emissions at intensive or boost setting, in dB and rounded to the nearest integer;
 - (20) the air flow values of the domestic range hood at minimum and maximum speed available in normal use, in m^3/h and rounded to the first decimal place;
 - (21) if present, the air flow value of the domestic range hood at intensive or boost setting, in m^3/h and rounded to the first decimal place;
 - (d) a copy of the calculations and the results of the calculations performed in accordance with Annex II;
 - (e) where appropriate, the references of the harmonised standards applied;
 - (f) where appropriate, the other technical standards and specifications used;
 - (g) identification and signature of the person empowered to bind the supplier.
2. Suppliers may include additional information.
-

ANNEX VI

Information to be provided in the cases where end-users cannot be expected to see the product displayed, except on the internet

A. DOMESTIC OVENS

1. The information referred to in Article 4(1)(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 specific domestic oven to which the figures quoted below apply;
 - (c) the energy efficiency class of the model for each cavity as defined in Annex I, Table 1; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (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 (electric and gas ovens) and in MJ (gas ovens), rounded to two decimal places; the declared value shall not be lower than the value reported in the technical documentation in Annex V;
 - (e) the number of cavities; the heat source(s) per cavity; the 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 IV.
3. The size and font in which all the information referred to in this Annex is printed or shown, shall be legible.

B. 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 specific range hood to which the figures quoted below apply;
 - (c) the energy efficiency class of the model as defined in Table 2 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (d) the annual energy consumption of the model in kWh, as defined in point 2.1 of Annex II; the declared value shall not be lower than the value reported in the technical documentation in Annex V;
 - (e) the fluid dynamic efficiency class of the model as defined in Table 3 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (f) the lighting efficiency class of the model as defined in Table 4 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (g) the grease filtering efficiency class of the model as defined in Table 5 of Annex I; the declared class shall not be more favourable than the class reported in the technical documentation in Annex V;
 - (h) the airborne acoustical A-weighted sound power emissions (weighted average value – L_{WA}) of a domestic range hood at minimum and maximum speed available in normal use, in dB rounded to the nearest integer; the declared value shall not be lower than the value reported in the technical documentation in Annex V.
 2. Where other information contained in the product information fiche is also provided, it shall be in the form and order specified in Annex IV.
 3. The size and font in which all the information referred to in this Annex is printed or shown, shall be legible.
-

ANNEX VII

Information to be provided in the case of sale, hire or hire-purchase through the internet

1. For the purpose of points 2 to 5 of this Annex the following definitions shall apply:
 - (a) 'display mechanism' means any screen, including tactile screen, or other visual technology used for displaying internet content to users;
 - (b) 'nested display' means visual interface where an image or data set is accessed by a mouse click, mouse roll-over or tactile screen expansion of another image or data set;
 - (c) 'tactile screen' means a screen responding to touch, such as that of a tablet computer, slate computer or a smartphone;
 - (d) 'alternative text' means text provided as an alternative to a graphic allowing information to be presented in non-graphical form where display devices cannot render the graphic or as an aid to accessibility such as input to voice synthesis applications.
2. The appropriate label made available by suppliers in accordance with Article 3(1)(a)(vi) or 3(1)(b)(vi) shall be shown on the display mechanism in proximity to the price of the product in accordance with the timetable set out in Article 3(3). For ovens, the appropriate label shall be shown for each cavity of the oven. The size shall be such that the label is clearly visible and legible and shall be proportionate to the size specified in Annex III. The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down in point 3 of this Annex. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.
3. The image used for accessing the label in the case of nested display shall:
 - (a) be an arrow in the colour corresponding to the energy efficiency class of the product on the label;
 - (b) indicate on the arrow the energy efficiency class of the product in white in a font size equivalent to that of the price; and
 - (c) have one of the following two formats:


4. In the case of nested display, the sequence of display of the label shall be as follows:
 - (a) the image referred to in point 3 of this Annex shall be shown on the display mechanism in proximity to the price of the product;
 - (b) the image shall link to the label;
 - (c) the label shall be displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
 - (d) the label shall be displayed by pop up, new tab, new page or inset screen display;
 - (e) for magnification of the label on tactile screens, the device conventions for tactile magnification shall apply;
 - (f) the label shall cease to be displayed by means of a close option or other standard closing mechanism;
 - (g) the alternative text for the graphic, to be displayed on failure to display the label, shall be the energy efficiency class of the product in a font size equivalent to that of the price.
5. The appropriate product fiche made available by suppliers in accordance with Article 3(1)(a)(vii) or 3(1)(b)(vii) shall be shown on the display mechanism in proximity to the price of the product. The size shall be such that the product fiche is clearly visible and legible. The product fiche may be displayed using a nested display, in which case the link used for accessing the fiche shall clearly and legibly indicate 'Product fiche'. If nested display is used, the product fiche shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

ANNEX VIII

Procedure for product conformity checking by market surveillance authorities

For the purposes of assessing conformity of products with the requirements laid down in this Regulation, the authorities of the Member States shall apply the following procedure:

1. The Member State authorities shall test one single unit per model.
2. The model shall be considered to comply with the applicable requirements:
 - (a) if the values and classes on the label and in the product fiche are not more favourable for the supplier than the values in the technical documentation, including test reports; and
 - (b) if testing of the relevant model parameters applying the tolerances listed in Table 6 shows compliance for all of those parameters.
3. If the result referred to in point 2(a) is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.
4. If the result referred to in point 2(b) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models which have been listed as equivalent product in the supplier's technical documentation.
5. The model shall be considered to comply with the applicable requirements if testing of the relevant model parameters listed in Table 6 shows compliance for all of those parameters.
6. If the result referred to in point 5 is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within one month of the decision being taken on the non-compliance of the model.

Member State authorities shall use the measurement and calculation methods set out in Annex II.

The tolerances set in this Annex shall be applied only to the verification of the measured parameters by Member State authorities, representing the allowed variations of the measurement results of the verification tests, and shall not be used by the supplier in establishing the values in the technical documentation or in interpreting these values with a view to achieving a better labelling classification or to communicate better performance by any means.

Table 6

Verification tolerances

Measured parameters	Verification tolerances
Mass of the oven (M)	The determined value shall not exceed the declared value of M by more than 5 %.
Volume of the cavity of the oven (V)	The determined value shall not be lower than the declared value of V by more than 5 %.
EC _{electric cavity} , EC _{gas cavity}	The determined value shall not exceed the declared value of EC _{electric cavity} , EC _{gas cavity} by more than 5 %.
W _{BEP} , W _L	The determined value shall not exceed the declared value of W _{BEP} , W _L by more than 5 %.
Q _{BEP} , P _{BEP}	The determined value shall not be lower than the declared value of Q _{BEP} , P _{BEP} by more than 5 %.
Q _{max}	The determined value shall not exceed the declared value of Q _{max} by more than 8 %.
E _{middle}	The determined value shall not be lower than the declared value of E _{middle} by more than 5 %.
GFE _{hood}	The determined value shall not be lower than the declared value of GFE _{hood} by more than 5 %.
P _o , P _s	The determined value of power consumption P _o and P _s shall not exceed the declared value by more than 10 %. The determined value of power consumption P _o and P _s of less than or equal to 1,00 W shall not exceed the declared value by more than 0,10 W.
Sound power level L _{WA}	The determined value shall not exceed the declared value.

COMMISSION REGULATION (EU) No 66/2014**of 14 January 2014****implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to
ecodesign requirements for domestic ovens, hobs and range hoods****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products⁽¹⁾, and in particular Article 15(1) thereof,

After consulting the Consultation Forum referred to in Article 18 of Directive 2009/125/EC,

Whereas:

- (1) Directive 2009/125/EC requires the Commission to set ecodesign requirements for energy-related products that account for significant volumes of sales and trade, have a significant environmental impact and present significant potential for improvement through design in terms of their environmental impact, without entailing excessive costs.
- (2) Article 16(2)(a) of Directive 2009/125/EC provides that in accordance with the procedure referred to in Article 19(3) and the criteria set out in Article 15(2), and after consulting the Consultation Forum, the Commission has to, as appropriate, introduce implementing measures for products offering a high potential for cost-effective reduction of greenhouse gas emissions, such as domestic appliances, including ovens, hobs and range hoods.
- (3) The Commission has carried out preparatory studies to analyse the technical, environmental and economic aspects of domestic cooking appliances such as ovens, hobs and range hoods. These studies involved stakeholders and interested parties from the Union and third countries, and the results have been made publicly available.
- (4) The main environmental aspect of the products covered that has been identified as significant for the purposes of this Regulation is energy consumption in the use phase.

- (5) Standby and off-mode functions can be responsible for much of the total power consumption of domestic cooking appliances such as ovens, hobs and range hoods. For such appliances, power consumption of these functions is part of the minimum energy performance requirements. Standby and off-mode requirements for domestic ovens and hobs are set on the basis of the ecodesign requirements of Commission Regulation (EC) No 1275/2008 of 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode, and networked standby, electric power consumption of electrical and electronic household and office equipment⁽²⁾.
- (6) The annual energy consumption of domestic ovens, hobs and range hoods was estimated to be 755 PJ (primary energy consumption) in the EU in 2010. Unless specific measures are taken, annual energy consumption is predicted to be 779 PJ in 2020. The preparatory studies show that the energy consumption of those products can be significantly reduced.
- (7) In combination, the ecodesign requirements set out in this Regulation and the labelling requirements of Commission Delegated Regulation (EU) No 65/2014⁽³⁾ are expected to result in annual primary energy savings of 27 PJ/a in 2020, increasing to 60 PJ/a by 2030.
- (8) The preparatory studies show that requirements regarding other ecodesign parameters referred to in Part 1, point 1.3, of Annex I to Directive 2009/125/EC are not necessary as electricity and gas consumption of domestic cooking appliances such as ovens, hobs and range hoods in the use phase is the most significant environmental aspect.
- (9) Products subject to this Regulation should be made more energy-efficient by applying existing non-proprietary cost-effective technologies that can reduce the combined costs of purchasing and operating these products.
- (10) The ecodesign requirements should not affect functionality from the end-user's perspective and should not negatively affect health, safety or the environment. In particular, the benefits of reducing energy consumption during the use phase should more than offset any possible additional environmental impact during the production phase and at the time of disposal.

⁽¹⁾ OJ L 285, 31.10.2009, p. 10.

⁽²⁾ OJ L 339, 18.12.2008, p. 45.

⁽³⁾ See page 1 of this Official Journal.

- (11) The ecodesign requirements should be introduced gradually in three tiers in order to provide a sufficient timeframe for manufacturers to redesign products subject to this Regulation. Such timeframe should avoid any negative impact on the functionality of equipment already on the market and should take into account costs incurred by end-users and manufacturers, in particular small- and medium-sized enterprises, while ensuring timely achievement of the objectives of this Regulation.
- (12) Product parameters should be measured and calculated using reliable, accurate and reproducible methods which take into account recognised state-of-the-art measurement and calculation methods, including, where available, harmonised standards adopted by the European standardisation organisations, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation ⁽¹⁾.
- (13) In accordance with Article 8 of Directive 2009/125/EC, this Regulation specifies the applicable conformity assessment procedures.
- (14) In order to facilitate compliance checks, manufacturers should provide information in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC in so far as this information relates to the requirements laid down in this Regulation.
- (15) To ensure fair competition, and with a view to achieving the intended energy savings and accurately informing consumers on products' energy performance, this Regulation should make clear that the tolerances prescribed for the national market surveillance authorities, when conducting physical tests to establish whether a specific model of an energy-related product is in compliance with this Regulation, should not be used by the manufacturers to provide room for declaring a more favourable performance of the model than measurements and calculations declared in the technical documentation of the product can justify.
- (16) In addition to the legally binding requirements laid down in this Regulation, indicative benchmarks for best-performing appliances available on the market should be identified to ensure wide availability and easy accessibility of information on the most relevant environmental aspects in the life-cycle environmental performance of products subject to this Regulation.
- (17) It is appropriate to provide for a review of the provisions of this Regulation taking into account technological progress, and in particular the effectiveness and the appropriateness of the approach followed for the determination of the ovens energy efficiency.
- (18) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 19(1) of Directive 2009/125/EC,
- HAS ADOPTED THIS REGULATION:
- Article 1*
- Subject matter and scope**
1. This Regulation establishes eco-design requirements for the placing on the market and putting into service of domestic ovens (including when incorporated in cookers), domestic hobs and domestic electric range hoods, including when sold for non-domestic purposes.
2. This Regulation shall not apply to:
- (a) appliances that use energy sources other than electricity or gas;
 - (b) appliances which offer 'microwave heating' function;
 - (c) small ovens;
 - (d) portable ovens;
 - (e) heat storage ovens;
 - (f) ovens which are heated with steam as a primary heating function;
 - (g) covered gas burners in hobs;
 - (h) outdoor cooking appliances;
 - (i) appliances designed for use only with gases of the 'third family' (propane and butane);
 - (j) grills.
- Article 2*
- Definitions**
- In addition to the definitions set out in Article 2 of Directive 2009/125/EC, the following definitions shall apply for the purpose of this Regulation:
- (1) 'oven' means an appliance or part of an appliance which incorporates one or more cavities using electricity and/or gas in which food is prepared by use of a conventional or fan-forced mode;
 - (2) 'cavity' means the enclosed compartment in which the temperature can be controlled for preparation of food;
 - (3) 'multi-cavity oven' means an oven with two or more cavities, each of which is heated separately;

⁽¹⁾ OJ L 316, 14.11.2012, p. 12.

- (4) 'small oven' means an oven where all cavities have a width and depth of less than 250 mm or a height less than 120 mm;
- (5) 'portable oven' means an oven with a product mass of less than 18 kilograms, provided it is not designed for built-in installations;
- (6) 'microwave heating' means heating of food using electromagnetic energy;
- (7) 'conventional mode' means the operation mode of an oven only using natural convection for circulation of heated air inside the cavity of the oven;
- (8) 'fan-forced mode' means a mode when a built-in fan circulates heated air inside the cavity of the oven;
- (9) 'cycle' means the period of heating a standardised load in a cavity of an oven under defined conditions;
- (10) 'cooker' means an appliance consisting of an oven and a hob using gas or electricity;
- (11) 'operation mode' means the status of the oven or hob during use;
- (12) 'heat source' means the main energy form for heating an oven or hob;
- (13) 'electric hob' means an appliance or part of an appliance which incorporates one or more cooking zones and/or cooking areas including a control unit and which is heated by electricity;
- (14) 'gas hob' means an appliance or part of an appliance which incorporates one or more cooking zones including a control unit and which is heated by gas burners of a minimum power of 1,16 kW;
- (15) 'hob' means an 'electric hob', a 'gas hob' or a 'mixed hob';
- (16) 'covered gas burners' means closed or sealed gas range burners covered with a heavy-duty glass or ceramic cover, which forms a smooth, seamless cooking surface;
- (17) 'mixed hob' means an appliance with one or more electrically heated cooking zones or areas and one or more cooking zones heated by gas burners;
- (18) 'cooking zone' means a part, with a diameter of at least 100 mm, of a hob where cookware is placed and heated with not more than one piece of cookware heated at a time; the area of the cooking zone may be visibly marked on the surface of the hob;
- (19) 'cooking area' means a part of an area of an electric hob heated by an inducted magnetic field, where cookware is placed for heating without visible marking for the cookware and where more than one item of cookware can be used simultaneously;
- (20) 'range hood' means an appliance, operated by a motor which it controls, intended to collect contaminated air from above a hob, or which includes a downdraft system intended for installation adjacent to cooking ranges, hobs and similar cooking products, that draws vapour down into an internal exhaust duct;
- (21) 'automatic functioning mode during the cooking period' means a condition in which the air flow of the range hood during the cooking period is automatically controlled through sensor(s), including as regards humidity, temperature, etc.;
- (22) 'fully automatic range hood' means a range hood in which the air flow and/or other functions are automatically controlled through sensor(s) during 24 hours including the cooking period;
- (23) 'best efficiency point' (BEP) means the range hood operating point with maximum fluid dynamic efficiency (FDE_{hood});
- (24) 'average illumination' (E_{middle}) means the average illumination provided by the lighting system of the range hood on the cooking surface, measured in lux;
- (25) 'off mode' means a condition in which the equipment is connected to the mains power source but is not providing any function, or only provides an indication of off-mode condition, or only provides functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2004/108/EC of the European Parliament and of the Council ⁽¹⁾;
- (26) '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 reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status display, which may persist for an indefinite time;
- (27) 'reactivation function' means a function facilitating the activation of other modes, including the active mode, by remote switch including remote control, internal sensor, or timer to a condition providing additional functions, including the main function;
- ⁽¹⁾ Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC (OJ L 390, 31.12.2004, p. 24).

- (28) 'information or status display' means a continuous function providing information or indicating the status of the equipment on a display, including clocks;
- (29) 'end-user' means a consumer buying or expected to buy a product;
- (30) 'equivalent model' means a model placed on the market with the same technical parameters as another model placed on the market under a different commercial code number by the same manufacturer or importer.

Article 3

Ecodesign requirements and timetable

1. The ecodesign requirements, including timing, for domestic ovens, hobs and range hoods are set out in Annex I.
2. Compliance with ecodesign requirements shall be measured and calculated in accordance with the methods set out in Annex II.

Article 4

Conformity assessment

1. The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall be the internal design control system set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.
2. For the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documentation file shall contain a copy of the calculation set out in Annex II to this Regulation.
3. Where the information included in the technical documentation for a model has been obtained by calculation on the basis of design, or extrapolation from other equivalent appliances, or both, the technical documentation shall include details of such calculations or extrapolations, or both, and of tests undertaken by manufacturers to verify the accuracy of the calculations undertaken. In such cases, the technical documentation shall also include a list of all other equivalent models

where the information contained in the technical documentation was obtained on the same basis.

4. If the manufacturer or importer places on the market equivalent models, the manufacturer or importer shall include a list of all other equivalent models.

Article 5

Verification procedure for market surveillance purposes

Member States' authorities shall apply the verification procedure described in Annex III to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC for compliance with requirements set out in Annex I to this Regulation.

Article 6

Indicative benchmarks

The indicative benchmarks for best-performing appliances available on the market at the time of entry into force of this Regulation are set out in Annex IV.

Article 7

Review

The Commission shall review this Regulation in the light of technological progress and present the result of this review to the Consultation Forum no later than 7 years after the entry into force of the Regulation. The review shall assess, amongst others, the feasibility of: potential requirements to enhance the recovery and recycling of the appliances; durability and lifetime requirements; the inclusion of professional and commercial appliances; and fume and odour removal requirements.

Article 8

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 1 year after the entry into force.

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

Done at Brussels, 14 January 2014.

For the Commission
The President
José Manuel BARROSO

ANNEX I

Ecodesign requirements

1. ENERGY EFFICIENCY, AIR FLOW AND ILLUMINATION REQUIREMENTS

1.1. For domestic ovens

Cavities of domestic ovens (including when incorporated in cookers) shall comply with maximum Energy Efficiency Index limits as indicated in Table 1.

Table 1

Energy Efficiency Index limits for cavities of domestic ovens (EEI_{cavity})

	Domestic electric & gas oven
From 1 year after the entry into force	$EEI_{cavity} < 146$
From 2 years after the entry into force	$EEI_{cavity} < 121$
From 5 years after the entry into force	$EEI_{cavity} < 96$

From 5 years after entry into force, for multi-cavity ovens (including when incorporated in cookers), at least one cavity shall comply with the maximum Energy Efficiency Index as indicated in Table 1 as applicable from 5 years after entry into force whereas the other cavities shall comply with the maximum Energy Efficiency Index as indicated in Table 1 as applicable from 2 years after entry into force.

1.2. For domestic hobs

The domestic hobs shall have the maximum energy consumption limits for electric hobs ($EC_{electric\ hob}$) and the minimum energy efficiency limits for gas-fired hobs ($EE_{gas\ hob}$) as indicated in Table 2.

Table 2

Energy efficiency performance limits for domestic hobs ($EC_{electric\ hob}$ and $EE_{gas\ hob}$)

	Electric hob ($EC_{electric\ hob}$ in Wh/kg)	Gas-fired hob ($EE_{gas\ hob}$ in %)
From 1 year after the entry into force	$EC_{electric\ hob} < 210$	$EE_{gas\ hob} > 53$
From 3 years after the entry into force	$EC_{electric\ hob} < 200$	$EE_{gas\ hob} > 54$
From 5 years after the entry into force	$EC_{electric\ hob} < 195$	$EE_{gas\ hob} > 55$

1.3. For domestic range hoods

1.3.1. Energy Efficiency Index (EEI_{hood}) and Fluid Dynamic Efficiency (FDE_{hood})

The domestic range hoods shall have the maximum EEI_{hood} and the minimum FDE_{hood} limits as indicated in Table 3.

Table 3

Energy Efficiency Index (EEI_{hood}) and Fluid Dynamic Efficiency (FDE_{hood}) for domestic range hoods

	EEI_{hood}	FDE_{hood}
From 1 year after the entry into force	$EEI_{hood} < 120$	$FDE_{hood} > 3$
From 3 years after the entry into force	$EEI_{hood} < 110$	$FDE_{hood} > 5$
From 5 years after the entry into force	$EEI_{hood} < 100$	$FDE_{hood} > 8$

1.3.2. Air flow

From 1 year after the entry into force, the domestic range hoods with a maximum air flow in any of the available settings higher than 650 m³/h shall automatically revert to an air flow lower than or equal to 650 m³/h in a time t_{limit} as defined in Annex II.

1.3.3. Low power modes for domestic range hoods

(1) From 18 months after the entry into force:

- Power consumption in 'off mode': the power consumption in any off-mode condition shall not exceed 1,00 W.
- Power consumption in 'standby mode(s)':
 - The power consumption in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 1,00 W.
 - The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, shall not exceed 2,00 W.
- Availability of 'off mode' and/or 'standby mode': domestic range hoods shall provide 'off mode' and/or 'standby mode', and/or another condition which does not exceed the applicable power consumption requirements for 'off mode' and/or 'standby mode' when the equipment is connected to the mains power source.

(2) From 3 years and 6 months after the entry into force:

- Power consumption in 'off mode': the power consumption in any off-mode condition shall not exceed 0,50 W.
- Power consumption in 'standby mode(s)': the power consumption in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W.

The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display shall not exceed 1,00 W.

- Power management: when domestic range hoods are not providing the main function, or when other energy-using product(s) are not dependent on its functions, equipment shall, unless inappropriate for the intended use, offer a power management function, or a similar function, that switches equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into:
 - 'standby mode', or
 - 'off mode', or
 - another condition which does not exceed the applicable power consumption requirements for 'off mode' and/or 'standby mode' when the equipment is connected to the mains power source.
- The power management function shall be activated before delivery.
- For range hoods with automatic functioning mode during the cooking period and fully automatic range hoods, the delay time after which the product switches automatically into the modes and conditions as referred to in the previous point shall be one minute after the motor and lighting have both been switched off either automatically or manually.

1.3.4. Illumination of the lighting

From 1 year after entry into force, for range hoods which provide for lighting of the cooking surface, the average illumination of the lighting system on the cooking surface (E_{middle}) shall be higher than 40 lux when measured under standard conditions.

2. PRODUCT INFORMATION REQUIREMENTS

From 1 year after entry into force, the following product information shall be provided in the technical documentation of the product, the booklet of instructions and on the free access websites of manufacturers of domestic ovens, hobs and range hoods, their authorised representatives, or importers:

- (a) short title or reference to the measurement and calculation methods used to establish compliance with the above requirements;
- (b) information relevant to users in order to reduce total environmental impact (e.g. energy use) of the cooking process.

From 1 year after entry into force, the technical documentation and a part for professionals of the free access websites of manufacturers, their authorised representatives, or importers shall contain information relevant for non-destructive disassembly for maintenance purposes and information relevant for dismantling, in particular in relation to the motor, if applicable, and any batteries, recycling, recovery and disposal at end-of-life.

2.1. For domestic ovens

Table 4

Information for domestic ovens

	Symbol	Value	Unit
Model identification			
Type of oven			
Mass of the appliance	M	X,X	kg
Number of cavities		X	
Heat source per cavity (electricity or gas)			
Volume per cavity	V	X	l
Energy consumption (electricity) required to heat a standardised load in a cavity of an electric heated oven during a cycle in conventional mode per cavity (electric final energy)	EC _{electric cavity}	X,XX	kWh/cycle
Energy consumption required to heat a standardised load in a cavity of an electric heated oven during a cycle in fan-forced mode per cavity (electric final energy)	EC _{electric cavity}	X,XX	kWh/cycle
Energy consumption required to heat a standardised load in a gas-fired cavity of an oven during a cycle in conventional mode per cavity (gas final energy)	EC _{gas cavity}	X,XX X,XX	MJ/cycle kWh/cycle ⁽¹⁾
Energy consumption required to heat a standardised load in a gas-fired cavity of an oven during a cycle in fan-forced mode per cavity (gas final energy)	EC _{gas cavity}	X,XX X,XX	MJ/cycle kWh/cycle
Energy Efficiency Index per cavity	EEL _{cavity}	X,X	

⁽¹⁾ 1 kWh/cycle = 3,6 MJ/cycle.

2.2. For domestic hobs

2.2.1. Domestic electric hobs

Table 5a

Information for domestic electric hobs

	Symbol	Value	Unit
Model identification			
Type of hob			
Number of cooking zones and/or areas		X	

	Symbol	Value	Unit
Heating technology (induction cooking zones and cooking areas, radiant cooking zones, solid plates)			
For circular cooking zones or area: diameter of useful surface area per electric heated cooking zone, rounded to the nearest 5 mm	Ø	X,X	cm
For non-circular cooking zones or areas: length and width of useful surface area per electric heated cooking zone or area, rounded to the nearest 5 mm	L W	X,X X,X	cm
Energy consumption per cooking zone or area calculated per kg	EC _{electric cooking}	X,X	Wh/kg
Energy consumption for the hob calculated per kg	EC _{electric hob}	X,X	Wh/kg

2.2.2. Domestic gas-fired hobs

Table 5b

Information for domestic gas-fired hobs

	Symbol	Value	Unit
Model identification			
Type of hob			
Number of gas burners		X	
Energy efficiency per gas burner	EE _{gas burner}	X,X	
Energy efficiency for the gas hob	EE _{gas hob}	X,X	

2.2.3. Domestic mixed gas and electric hobs

Table 5c

Information for domestic mixed hobs

	Symbol	Value	Unit
Model identification			
Type of hob			
Number of electric cooking zones and/or areas		X	
Heating technology (induction cooking zones and cooking areas, radiant cooking zones, solid plates) per electric cooking zone and/or area			
For circular electric cooking zones: diameter of useful surface area per electric heated cooking zone, rounded to the nearest 5 mm	Ø	X,X	cm

	Symbol	Value	Unit
For non-circular electric cooking zones or areas: length and width of useful surface area per electric heated cooking zone or area, rounded to the nearest 5 mm	L W	X,X X,X	cm
Energy consumption per electric cooking zone or area calculated per kg	EC _{electric cooking}	X	Wh/kg
Number of gas fired burners		X	
Energy efficiency per gas burner	EE _{gas burner}	X,X	

2.3. For domestic range hoods

Table 6

Information for domestic range hoods

	Symbol	Value	Unit
Model identification			
Annual Energy Consumption	AEC _{hood}	X,X	kWh/a
Time increase factor	f	X,X	
Fluid Dynamic Efficiency	FDE _{hood}	X,X	
Energy Efficiency Index	EEL _{hood}	X,X	
Measured air flow rate at best efficiency point	Q _{BEP}	X,X	m ³ /h
Measured air pressure at best efficiency point	P _{BEP}	X	Pa
Maximum air flow	Q _{max}	X,X	m ³ /h
Measured electric power input at best efficiency point	W _{BEP}	X,X	W
Nominal power of the lighting system	W _L	X,X	W
Average illumination of the lighting system on the cooking surface	E _{middle}	X	lux
Measured power consumption in standby mode	P _s	X,XX	W
Measured power consumption off mode	P _o	X,XX	W
Sound power level	L _{WA}	X	dB

ANNEX II

Measurements and calculations

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using a reliable, accurate and reproducible method that take into account the generally recognised state-of-the-art measurement and calculation methods, including harmonised standards the reference numbers of which have been published for the purpose in the *Official Journal of the European Union*. They shall meet the technical definitions, conditions, equations and parameters set out in this Annex.

1. DOMESTIC OVENS

The energy consumption of a cavity of a domestic oven shall be measured for one standardised cycle, in a conventional mode and in a fan-forced mode, if available, by heating a standardised load soaked with water. It shall be verified that the temperature inside the oven cavity reaches the temperature setting of the thermostat and/or the oven control display within the duration of the test cycle. The energy consumption per cycle corresponding to the best performing mode (conventional mode or fan-forced mode) shall be used in the following calculations.

For each cavity of a domestic oven, the Energy Efficiency Index (EEL_{cavity}) shall be calculated according to the following formulas:

for domestic electric ovens:

$$EEL_{cavity} = \frac{EC_{electric\ cavity}}{SEC_{electric\ cavity}} \times 100$$

$$SEC_{electric\ cavity} = 0,0042 \times V + 0,55 \text{ (in kWh)}$$

for domestic gas ovens:

$$EEL_{cavity} = \frac{EC_{gas\ cavity}}{SEC_{gas\ cavity}} \times 100$$

$$SEC_{gas\ cavity} = 0,044 \times V + 3,53 \text{ (in MJ)}$$

Where:

- EEL_{cavity} = Energy Efficiency Index for each cavity of a domestic oven, rounded to the first decimal place,
- $SEC_{electric\ cavity}$ = Standard Energy Consumption (electricity) required to heat a standardised load in a cavity of a domestic electric heated oven during a cycle, expressed in kWh, rounded to the second decimal place,
- $SEC_{gas\ cavity}$ = Standard Energy Consumption required to heat a standardised load in a cavity of a domestic gas-fired oven during a cycle, expressed in MJ, rounded to the second decimal place,
- V = Volume of the cavity of the domestic oven in litres (L), rounded to the nearest integer,
- $EC_{electric\ cavity}$ = Energy Consumption required to heat a standardised load in a cavity of a domestic electric heated oven during a cycle, expressed in kWh, rounded to the second decimal place,
- $EC_{gas\ cavity}$ = Energy Consumption required to heat a standardised load in a gas-fired cavity of a domestic oven during a cycle, expressed in MJ, rounded to the second decimal place.

2. DOMESTIC HOBS**2.1. Domestic electric hobs**

The energy consumption of a domestic electric hob ($EC_{electric\ hob}$) is measured in Wh per kg of water heated in a normalised measurement (Wh/kg) considering all cookware pieces under standardised test conditions and rounded to the first decimal place.

2.2. Domestic gas hobs

The energy efficiency of gas burners in a domestic hob is calculated as follows:

$$EE_{gas\ burner} = \frac{E_{theoretic}}{E_{gas\ burner}} \times 100$$

Where:

- $EE_{\text{gas burner}}$ = energy efficiency of a gas burner in % and rounded to the first decimal place,
- $E_{\text{gas burner}}$ = energy content of the consumed gas for the prescribed heating in MJ and rounded to the first decimal place,
- $E_{\text{theoretic}}$ = theoretic minimum required energy for the corresponding prescribed heating in MJ and rounded to the first decimal place.

The energy efficiency of the gas hob ($EE_{\text{gas hob}}$) is calculated as the average of the energy efficiency of the different gas burners ($EE_{\text{gas burner}}$) of the hob.

2.3. Domestic mixed electric/gas hobs

Domestic mixed electric and gas hobs are treated in the measurements as two separate appliances. Electric cooking zones and cooking areas of the domestic mixed hobs shall follow the provisions of the previous Section 2.1 and cooking zones heated by gas burners shall follow the provisions of the previous Section 2.2.

3. DOMESTIC RANGE HOODS

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

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

$$EEI_{\text{hood}} = \frac{AEC_{\text{hood}}}{SAEC_{\text{hood}}} \times 100$$

and is rounded to the first decimal place.

Where:

- $SAEC_{\text{hood}}$ = Standard Annual Energy consumption of the domestic range hood in kWh/a, rounded to the first decimal place,
- AEC_{hood} = Annual Energy Consumption of the domestic range hood in kWh/a, rounded to the first decimal place.

The Standard Annual Energy Consumption ($SAEC_{\text{hood}}$) of a domestic range hood shall be calculated as:

$$SAEC_{\text{hood}} = 0,55 \times (W_{\text{BEP}} + W_L) + 15,3$$

Where:

- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, in Watt and rounded to the first decimal place,
- W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.

The Annual Energy Consumption (AEC_{hood}) of a domestic range hood is calculated as:

- (i) for the fully automatic domestic range hoods:

$$AEC_{\text{hood}} = \left[\frac{(W_{\text{BEP}} \times t_H \times f) + (W_L \times t_L)}{60 \times 1\,000} + \frac{P_0 \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000} + \frac{P_S \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000} \right] \times 365$$

- (ii) for all other domestic range hoods:

$$AEC_{\text{hood}} = \frac{[W_{\text{BEP}} \times (t_H \times f) + W_L \times t_L]}{60 \times 1\,000} \times 365$$

Where:

- 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_0 is the electric power input in off mode of the domestic range hood, in Watt and rounded to the second decimal place,

- P_s is the electric power input in standby mode of the domestic range hood, in Watt and rounded to the second decimal place,
- f is the time increase factor, calculated and rounded to the first decimal place, as:

$$f = 2 - (FDE_{hood} \times 3,6)/100$$

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

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

$$FDE_{hood} = \frac{Q_{BEP} \times P_{BEP}}{3\,600 \times W_{BEP}} \times 100$$

Where:

- Q_{BEP} is the flow rate of the domestic range hood at best efficiency point, expressed in m^3/h and rounded to the first decimal place,
- P_{BEP} is the static pressure difference of the domestic range hood at best efficiency point, expressed in Pa and rounded to the nearest integer,
- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, expressed in Watt and rounded to the first decimal place.

3.3. Calculation on the limitation of the exhaust air

- 3.3.1. Domestic range hoods with a maximum air flow in any of the available setting higher than $650 m^3/h$ shall automatically revert to an air flow lower than or equal to $650 m^3/h$ in a time t_{limit} . This is the time limit to extract a volume of air of $100 m^3$ by the domestic range hood operating with an airflow higher than $650 m^3/h$, before automatically switching to an airflow of $650 m^3/h$ or lower. It is calculated, expressed in minutes and rounded to the nearest integer as:

$$t_{limit} = \frac{6\,000 m^3}{Q_{max}}^{(1)}$$

Where:

- Q_{max} is the maximum air flow of the domestic range hood, including intensive/boost mode if present, in m^3/h and rounded to the first decimal place.

The mere presence of a manual switch or setting decreasing the air flow of the appliance to a value lower than or equal to $650 m^3/h$ is not considered fulfilling this requirement.

- 3.3.2. For domestic range hoods with automatic functioning mode during the cooking period:

- the activation of the automatic functioning mode shall be possible only through a manual operation by the user, either on the hood or elsewhere,
- the automatic functioning mode shall revert to manual control after no more than 10 minutes from the moment the automatic function switches off the motor.

3.4. Illumination of lighting system (E_{middle})

The average illumination of the lighting system on the cooking surface (E_{middle}) is measured under standard conditions in lux and rounded to the nearest integer.

3.5. Noise

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

⁽¹⁾ See $V = \int_0^t \frac{Q_{max}}{60} \times dt$ which can be simplified to $t_{limit} = \frac{V_{max}}{Q_{max}} \times 60$

Where:

- V_{max} is the maximum volume of air to be extracted, set at $100 m^3$,
- Q_{max} is the maximum air flow of the range hood, including intensive/boost mode if present,
- t is the time expressed in minutes and rounded to the nearest integer,
- dt is the total time until the air volume of $100 m^3$ has been reached,
- t_{limit} is the time limit, expressed in minutes and rounded to the nearest integer, needed to extract $100 m^3$.

ANNEX III

Procedure for product conformity checking by market surveillance authorities

For the purposes of assessing conformity of products with the requirements laid down in this Regulation referred to in Article 3(2) of Directive 2009/125/EC, the authorities of the Member States shall apply the following procedure:

1. The Member State authorities shall test one single unit per model.
2. The model shall be considered to comply with the applicable requirements:
 - (a) if the values provided in the product information as required by this Regulation are not more favourable for the manufacturer than the values in the technical documentation, including test reports; and
 - (b) if testing of the relevant model parameters applying the tolerances listed in Table 7 shows compliance for all of those parameters.
3. If the result referred to in point 2(a) is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.
4. If the result referred to in point 2(b) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models which have been listed as equivalent product in the supplier's technical documentation.
5. The model shall be considered to comply with the applicable requirements if testing of the relevant model parameters listed in Table 7 shows compliance for all of those parameters.
6. If the result referred to in point 5 is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within 1 month of the decision being taken on the non-compliance of the model.

Member State authorities shall use the measurement and calculation methods set out in Annex II.

The tolerances set in this Annex shall be applied only to the verification of the measured parameters by Member State authorities, representing the allowed variations of the measurement results of the verification tests, and shall not be used by the manufacturer in establishing the values in the technical documentation or in interpreting these values with a view to achieving a better labelling classification or to communicate better performance by any means.

Table 7

Verification tolerances

Measured parameters	Verification tolerances
Mass of the domestic oven (M)	The determined value shall not exceed the declared value of M by more than 5 %.
Volume of the cavity of the domestic oven (V)	The determined value shall not be lower than the declared value of V by more than 5 %.
EC _{electric cavity} , EC _{gas cavity}	The determined value shall not exceed the declared value of EC _{electric cavity} , EC _{gas cavity} by more than 5 %.
EC _{electric hob}	The determined value shall not exceed the declared value of EC _{electric hob} by more than 5 %.
EE _{gas hob}	The determined value shall not be lower than the declared value of EE _{gas hob} by more than 5 %.
W _{BEP} , W _L	The determined value shall not exceed the declared value of W _{BEP} , W _L by more than 5 %.

Measured parameters	Verification tolerances
Q_{BEP} , P_{BEP}	The determined value shall not be lower than the declared value of Q_{BEP} , P_{BEP} by more than 5 %.
Q_{max}	The determined value shall not exceed the declared value of Q_{max} by more than 8 %.
E_{middle}	The determined value shall not be lower than the declared value of E_{middle} by more than 5 %.
Sound power level L_{WA}	The determined value shall not exceed the declared value.
P_o , P_s	The determined value of power consumption P_o and P_s shall not exceed the declared value by more than 10 %. The determined value of power consumption P_o and P_s of less than or equal to 1,00 W shall not exceed the declared value by more than 0,10 W.

ANNEX IV

Indicative benchmarks

At the time of entry into force of this Regulation, the best-performing domestic ovens, hobs and range hoods available on the market in terms of their energy performance were identified as follows:

Domestic ovens	Electric	$EEl_{cavity} = 70,7$
	Gas	$EEl_{cavity} = 75,4$
Domestic hobs	Electric	$EC_{electric\ cooking} = 169,3$
	Gas	$EE_{gas\ burner} = 63,5\ \%$
Domestic range hoods	Air flow	$FDE_{hood} = 22$
	Noise	51 dB at 550 m ³ /h; 57 dB at 750 m ³ /h

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