Working Document on a Draft

COMMISSION DELEGATED REGULATION (EU) No …/..

of XXX


with regard to the energy labelling of ovens and range hoods

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 representing significant potential for energy savings and presenting a wide disparity in performance levels with equivalent functionality.

(2) 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\(^2\).

(3) The energy used by electric ovens accounts for a significant part of total energy demand in the European Union. In addition to the energy efficiency improvements already achieved, the scope for further reducing the energy consumption of these appliances is substantial.

(4) Directive 2002/40/EC should be repealed and new provisions should be laid down by this Regulation in order to ensure that the energy labels provides dynamic incentives for suppliers to further improve the energy efficiency of these appliances and to accelerate market transformation towards energy-efficient technologies.

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


\(^2\) OJ L 128, 15.5.2002, p. 45;
The provisions of this Regulation should apply to electric ovens with a total nominal power below or equal to 10 kW, to gas ovens with a total nominal heat input below or equal to 15 kW (including when incorporated into cookers) and to electric range hoods with a nominal power below 280 W.

This Regulation introduces a revised energy efficiency scale from A+++ to D for all concerned ovens and a new energy efficiency scale from A to G with a '+' added on the top of the scale every two years until the A+++ class has been reached for range hoods, these further classes should be added to accelerate the market penetration of high-efficient appliances.

The combined effect of the provisions set out in this Delegated Regulation, and in the Commission Regulation XXX/2013 [Numbering of the Commission Regulation on the ecodesign requirements for ovens, hobs and range hoods and OJ reference in footnote to be added before publication in the OJ], is expected to result in annual primary energy savings of 27 PJ/a in 2020, increasing up to 60 PJ/a by 2030.

The sound power level of a range hood can be an important consideration for end-users. Information on sound power levels should be included on the labels of range hoods, to enable end-users to make an informed decision.

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

This Regulation should specify a uniform design and content for the labelling of ovens including when incorporated into cookers and electric range hoods.

This Regulation should specify requirements as to the technical documentation and the fiche for ovens including when incorporated into cookers and electric range hoods.

This Regulation should specify requirements as to the information to be provided for any form of distance selling, advertisements and technical promotional material of ovens including when incorporated into cookers and electric range hoods.

It is appropriate to provide for a review of the provisions of this Regulation taking into account technological progress.

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HAS ADOPTED THIS REGULATION:

Chapter 1
Subject matter and scope

1. This Regulation establishes requirements for the labelling and the provision of supplementary product information for electric and gas ovens including when incorporated into cookers and for electric range hoods.

2. This Regulation shall not apply to:
   a) appliances that use energy sources other than electricity or gas;
   b) appliances which offer the function ‘microwave heating’;
   c) small ovens;
   d) portable ovens;
   e) range hoods without motor;

Chapter 2
Definitions

In addition to the definitions set out in Article 2 of Directive 2010/30/EC, the following definitions shall apply:

1. ‘Appliance’ means an energy using apparatus with a specific function;

2. ‘Oven’ means an appliance or part of an appliance which incorporates one or more cavities using electricity with a total nominal power below or equal to 10 kW and/or gas with a total nominal heat input below or equal to 15 kW to operate;

3. ‘Cavity’ means the enclosed compartment in which the temperature can be controlled for preparation of food;

4. ‘Small oven’ means an oven with the following cavity size: width and depth < 250 mm or height < 120 mm;

5. ‘Portable oven’ means an oven other than fixed 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 by 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’ or ‘cooking range’ 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 a motor operated appliance with a nominal power below 280 W, intended to collect contaminated air from above a hob or includes a downdraft system intended for installation adjacent to cooking ranges, hobs and similar cooking appliances, that draws vapour down into an internal exhaust duct. The blower of the range hood may be internal or external, provided that is controlled by the range hood. The air may be ducted away or discharged back into the room after filtration;

14. ‘Range hood without motor’ means an appliance intended to collect contaminated air from above a hob connected to a ventilation appliance not controlled by the range hood;

15. ‘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), such as humidity, temperature, etc.;

16. ‘Fully automatic range hood’ means a range hood in which the air flow and/or other functions are automatically controlled through sensor(s) during the 24h hours including the cooking period;

17. ‘Fluid Dynamic Efficiency’ (FDE\textsubscript{hood}) means the fluid dynamic efficiency of the range hood at its best efficiency point (BEP);

18. ‘Best efficiency point’ (BEP) means the range hood operating point with maximum fluid dynamic efficiency;

19. ‘Grease filtering efficiency’ (GFE\textsubscript{hood}) means the relative amount of grease retained within the range hood grease filters;

20. ‘Lighting Efficiency’ (LE\textsubscript{hood}) means the ratio between the average illumination of the lighting system of the range hood and the power of the lighting system in lux/W;

21. ‘Off mode’ means a condition in which the equipment is connected to the mains power source and is not providing any function. Also considered as off mode are conditions providing only an indication of off mode condition, as well as conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2004/108/EC of the European Parliament and of the Council;

22. ‘Standby mode’ means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only the following functions, which may persist for an indefinite time: reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status display;

23. ‘Reactivation function’ means a function facilitating the activation of other modes, including active mode, by remote switch including remote control, internal sensor, timer to a condition providing additional functions, including the main function;
24. ‘Information or status display’ means a continuous function providing information or indicating the status of the equipment on a display, including clocks;

25. ‘End-user’ means a consumer buying or expected to buy a product;

26. ‘Point of sale’ means a location where appliances are displayed and/or offered for sale, hire or hire-purchase.

Chapter 3

Responsibilities of suppliers and timetable

1. Suppliers shall ensure that:
   a) For ovens:
      i) each 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 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 ovens contains the energy efficiency class, if the advertisement discloses energy-related or price information;
      v) any technical promotional material concerning a specific model of ovens which describes its specific technical parameters includes the energy efficiency class of that model;
   b) For range hoods:
      i) each 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 range hoods placed on the market;
      iii) the technical documentation as set out in point B of Annex V, hoods is made available on request to the authorities of the Member States;
      iv) any advertisement for a specific model of range hoods contains the energy efficiency class, if the advertisement discloses energy-related or price information;
      v) any technical promotional material concerning a specific model of range hoods which describes its specific technical parameters includes the energy efficiency class of that model.

2. Efficiency classes:
   a) For ovens, the energy efficiency classes 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 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 of the range hoods shall be determined in accordance with point 2(2) of Annex I and point 2.b of Annex II;

iii) the lighting efficiency classes of the range hoods shall be determined in accordance with point 2(3) of Annex I and point 2.c of Annex II;

iv) the grease filtering efficiency classes of the range hoods shall be determined in accordance with point 2(4) of Annex I and point 2.d of Annex II.

3. Formats of the labels:

a) For 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 July 2014 with energy efficiency classes A+++ , A++, A+, A, B, C, D.

b) For 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 range hoods placed on the market from 1 July 2014 with energy efficiency classes A, B, C, D, E, F, G, labels shall be in accordance with point 2.1.1 of Annex III or, where suppliers deem appropriate, with point 2.1.2 of that Annex;

ii) for range hoods placed on the market from 1 July 2015 with energy efficiency classes A+, A, B, C, D, E, F, labels shall be in accordance with point 2.1.2 of Annex III or, where suppliers deem appropriate, with point 2.1.3 of that Annex;

iii) for range hoods placed on the market from 1 July 2017 with energy efficiency classes A++, A+, A, B, C, D, E, labels shall be in accordance with point 2.1.3 of Annex III or, where suppliers deem appropriate, with point 2.1.4 of that Annex;

iv) for range hoods placed on the market from 1 July 2019 with energy efficiency classes A+++, A++, A+, A, B, C, D, labels shall be in accordance with point 2.1.4 of Annex III.

Chapter 4
Responsibilities of dealers

Dealers shall ensure that:

1. For ovens:

a) each oven presented at the point of sale is accompanied by the label for each cavity provided by suppliers in accordance with Chapter 3(1)(a)(i) displayed on the front or top of the appliance, or in the proximity 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, hire or hire purchase where the end-user cannot be expected to see the product displayed, as specified in Article 7 of Directive 2010/30/EU, are marketed with the information provided by suppliers in accordance with part A of Annex VI to this Regulation;

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 range hoods:

a) each range hood presented at the point of sale is accompanied by the label provided by suppliers in accordance with Chapter 3(1)(b)(i)) displayed on the front or top of the appliance, or in the proximity 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) range hoods offered for sale, hire or hire purchase where the end-user cannot be expected to see the product displayed, as specified in Article 7 of Directive 2010/30/EU, are marketed with the information provided by suppliers in accordance with part B of Annex VI to this Regulation;

c) any advertisement for any form or medium of distance selling and marketing concerning a specific model of 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 range hood includes the energy efficiency class of the model;

Chapter 5
Measurement and calculation methods

The information to be provided under Chapters 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.

Chapter 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 VII.
Chapter 7
Revision

The Commission shall review this delegated Regulation in the light of technological progress no later than 1 July 2020.

Chapter 8
Repeal


Chapter 9
Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

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

Done at Brussels,

For the Commission
The President
José Manuel BARROSO
ANNEX I
Efficiency classes

1. OVENS

The energy efficiency classes of 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 Annex II, point 1.

Table 1: Energy efficiency classes of ovens

<table>
<thead>
<tr>
<th>Energy Efficiency Class</th>
<th>Energy Efficiency Index (EEI_{cavity})</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+++ (most efficient)</td>
<td>EEI_{cavity} &lt; 45</td>
</tr>
<tr>
<td>A++</td>
<td>45 ≤ EEI_{cavity} &lt; 62</td>
</tr>
<tr>
<td>A+</td>
<td>62 ≤ EEI_{cavity} &lt; 82</td>
</tr>
<tr>
<td>A</td>
<td>82 ≤ EEI_{cavity} &lt; 107</td>
</tr>
<tr>
<td>B</td>
<td>107 ≤ EEI_{cavity} &lt; 132</td>
</tr>
<tr>
<td>C</td>
<td>132 ≤ EEI_{cavity} &lt; 159</td>
</tr>
<tr>
<td>D (least efficient)</td>
<td>EEI_{cavity} ≥ 159</td>
</tr>
</tbody>
</table>

2. RANGE HOODS

a) The energy efficiency classes of 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 range hoods shall be calculated in accordance with Annex II, point 2(1).

Table 2: Energy efficiency classes of range hoods

<table>
<thead>
<tr>
<th>Energy Efficiency Class</th>
<th>Energy Efficiency Index (EEI_{hood})</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+++ (most efficient)</td>
<td>EEI_{hood} &lt; 30</td>
</tr>
<tr>
<td>A++</td>
<td>30 ≤ EEI_{hood} &lt; 37</td>
</tr>
<tr>
<td>A+</td>
<td>37 ≤ EEI_{hood} &lt; 45</td>
</tr>
<tr>
<td>A</td>
<td>45 ≤ EEI_{hood} &lt; 55</td>
</tr>
<tr>
<td>B</td>
<td>55 ≤ EEI_{hood} &lt; 70</td>
</tr>
<tr>
<td>C</td>
<td>70 ≤ EEI_{hood} &lt; 85</td>
</tr>
<tr>
<td>D</td>
<td>85 ≤ EEI_{hood} &lt; 100</td>
</tr>
<tr>
<td>E</td>
<td>100 ≤ EEI_{hood} &lt; 110</td>
</tr>
<tr>
<td>F</td>
<td>110 ≤ EEI_{hood} &lt; 120</td>
</tr>
<tr>
<td>G (least efficient)</td>
<td>EEI_{hood} ≥ 120</td>
</tr>
</tbody>
</table>

b) The fluid dynamic efficiency classes of a 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 range hoods shall be determined in accordance with Annex II, point 2(2).
Table 3: Fluid Dynamic Efficiency classes for range hoods

<table>
<thead>
<tr>
<th>Fluid Dynamic Efficiency Class</th>
<th>Fluid Dynamic Efficiency (FDE\textsubscript{hood})</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (most efficient)</td>
<td>FDE\textsubscript{hood} &gt; 28</td>
</tr>
<tr>
<td>B</td>
<td>23 &lt; FDE\textsubscript{hood} ≤ 28</td>
</tr>
<tr>
<td>C</td>
<td>18 &lt; FDE\textsubscript{hood} ≤ 23</td>
</tr>
<tr>
<td>D</td>
<td>13 &lt; FDE\textsubscript{hood} ≤ 18</td>
</tr>
<tr>
<td>E</td>
<td>8 &lt; FDE\textsubscript{hood} ≤ 13</td>
</tr>
<tr>
<td>F</td>
<td>4 &lt; FDE\textsubscript{hood} ≤ 8</td>
</tr>
<tr>
<td>G (least efficient)</td>
<td>FDE\textsubscript{hood} ≤ 4</td>
</tr>
</tbody>
</table>

c) The lighting efficiency classes of a range hood shall be determined in accordance with its Lighting Efficiency (LE\textsubscript{hood}) as in the following Table 4. The Lighting Efficiency of range hoods shall be determined in accordance with Annex II, point 2(3).

Table 4: Lighting Efficiency classes for range hoods

<table>
<thead>
<tr>
<th>Lighting Efficiency Class</th>
<th>Lighting Efficiency (LE\textsubscript{hood})</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (most efficient)</td>
<td>LE\textsubscript{hood} &gt; 28</td>
</tr>
<tr>
<td>B</td>
<td>24 &lt; LE\textsubscript{hood} ≤ 28</td>
</tr>
<tr>
<td>C</td>
<td>20 &lt; LE\textsubscript{hood} ≤ 24</td>
</tr>
<tr>
<td>D</td>
<td>16 &lt; LE\textsubscript{hood} ≤ 20</td>
</tr>
<tr>
<td>E</td>
<td>12 &lt; LE\textsubscript{hood} ≤ 16</td>
</tr>
<tr>
<td>F</td>
<td>8 &lt; LE\textsubscript{hood} ≤ 12</td>
</tr>
<tr>
<td>G (least efficient)</td>
<td>LE\textsubscript{hood} ≤ 8</td>
</tr>
</tbody>
</table>

d) The grease filtering efficiency classes of a range hood shall be determined in accordance with its Grease Filtering Efficiency (GFE\textsubscript{hood}) as in the following Table 5. The Grease Filtering Efficiency of range hoods shall be determined in accordance with Annex II, point 2(4).

Table 5: Grease Filtering Efficiency (GFE\textsubscript{hood}) classes for range hoods

<table>
<thead>
<tr>
<th>Grease Filtering Efficiency Class</th>
<th>Grease Filtering Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (most efficient)</td>
<td>GFE\textsubscript{hood} &gt; 95</td>
</tr>
<tr>
<td>B</td>
<td>85 &lt; GFE\textsubscript{hood} ≤ 95</td>
</tr>
<tr>
<td>C</td>
<td>75 &lt; GFE\textsubscript{hood} ≤ 85</td>
</tr>
<tr>
<td>D</td>
<td>65 &lt; GFE\textsubscript{hood} ≤ 75</td>
</tr>
<tr>
<td>E</td>
<td>55 &lt; GFE\textsubscript{hood} ≤ 65</td>
</tr>
<tr>
<td>F</td>
<td>45 &lt; GFE\textsubscript{hood} ≤ 55</td>
</tr>
<tr>
<td>G (least efficient)</td>
<td>GFE\textsubscript{hood} ≤ 45</td>
</tr>
</tbody>
</table>
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. **OVENS**

The energy consumption of a cavity of an 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. 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 an electric and gas ovens, the Energy Efficiency Index (EEI<sub>cavity</sub>) shall be calculated according to the following formulas:

For 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 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 an oven, in %, rounded to the first decimal place;
- \( SEC_{electric \ cavity} \) = Specific Energy Consumption (electricity) required to heat a standardised load in a cavity of an electric heated oven during a cycle, expressed in kWh, rounded to the second decimal place;
- \( SEC_{gas \ cavity} \) = Specific Energy Consumption required to heat a standardised load in a cavity of a gas-fired oven during a cycle, expressed in MJ, rounded to the second decimal place;
\[ V = \text{Volume of the cavity of the oven in litres (L), rounded to the nearest integer}; \]

\[ EC_{\text{electric cavity}} = \text{Energy consumption required to heat a standardised load in a cavity of an electric heated oven during a cycle, expressed in kWh, rounded to the second decimal place}; \]

\[ EC_{\text{gas cavity}} = \text{Energy consumption required to heat a standardised load in a gas-fired cavity of an oven during a cycle, expressed in MJ, rounded to the second decimal place.} \]

2. **RANGE HOODS**

2.1. **Calculation of the Energy Efficiency Index (EEI}_{\text{hood}})\]

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

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

and is rounded to the first decimal place.

Where:

\[ SAEC_{\text{hood}} \] is the *Standard Annual Energy consumption of the range hood in kWh/a, rounded to the first decimal place;

\[ AEC_{\text{hood}} \] is the *Annual Energy Consumption of the range hood in kWh/a, rounded to the first decimal place.

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

\[ SAEC_{\text{hood}} = 0.55 \times (W_{\text{BEP}} + W_L) + 15.3 \]

Where:

\[ W_{\text{BEP}} \] is the electric power input of the 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 range hood on the cooking surface, in Watt and rounded to the first decimal place.

The Annual Energy Consumption (\( AEC_{\text{hood}} \)) of a range hood is calculated as:
i) for the fully automatic range hoods:

\[ AEC_{\text{hood}} = \left( \frac{W_{\text{BEP}} \times t_H \times f}{t_H \times 1.000} + \frac{P_o \times (1.440 - t_H \times f)}{2 \times t_H \times 1.000} + \frac{P_s \times (1.440 - t_H \times f)}{2 \times t_H \times 1.000} \right) \times 365 \]

ii) for all other range hoods:

\[ AEC_{\text{hood}} = \left( \frac{W_{\text{BEP}} \times (t_H \times f) + W_s \times t_L}{60 \times 1000} \right) \times 365 \]

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 range hoods, in minutes, (\( t_H = 60 \));
- \( P_o \) is the electric power input in off-mode of the range hood, in Watt and rounded to the second decimal place;
- \( P_s \) is the electric power input in standby mode of the 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:

\[ f = 2 - \frac{(FDE_{\text{hood}} \times 3.6)}{100} \]

2.2. Calculation of the Fluid Dynamic Efficiency (\( FDE_{\text{hood}} \))

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

\[ FDE = \frac{Q_{\text{BEP}} \times P_{\text{BEP}}}{3600 \times W_{\text{BEP}}} \times 100 \]

Where:

- \( Q_{\text{BEP}} \) is the flow rate of the range hood at best efficiency point, expressed in m\(^3\)/h and rounded to the first decimal place;
- \( P_{\text{BEP}} \) is the static pressure difference of the range hood at best efficiency point, expressed in Pa and rounded to the nearest integer;
- \( W_{\text{BEP}} \) is the electric power input of the range hood at the best efficiency point, expressed in Watt and rounded to the nearest integer.
2.3. Calculation of the Lighting Efficiency (LE<sub>hood</sub>)

The Lighting Efficiency (LE<sub>hood</sub>) of a 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, in lux and rounded to the nearest integer;
- \( W_L \) is the nominal electric power input of the lighting system of the range hood on the cooking surface, in Watt and rounded to the first decimal place.

2.4. Calculation of the Grease Filtering Efficiency (GFE<sub>hood</sub>)

The Grease Filtering Efficiency (GFE<sub>hood</sub>) of a 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:

\[ GFE_{hood} = \left( \frac{w_g}{w_r + w_t + w_g} \right) \times 100 \quad [\%] \]

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 range hood at the highest setting for normal use, rounded to the nearest integer.
ANNEX III
The label

1. **LABEL FOR OVENS**

1.1. **Electric ovens**

1.1.1 *Label presentation – for each cavity of an electric oven*

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
1.1.2  Label information – 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 oven model from other models with the same trade mark or supplier’s name;

III Energy source of the 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/or 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 – electric ovens

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

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
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):

1. **Border stroke**: 4 pt – colour: cyan 100% – round corners: 3 mm.

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

3. **Energy logo**: colour: X-00-00-00;
   pictogram as depicted: EU logo + energy label: width: 70 mm, height: 14 mm.

4. **Sub-logos border**: 1.5 pt – colour: cyan 100% – length: 70 mm.

5. **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.

6. **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.

7. **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.

8 **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.

9 **Asterisk**: Calibri regular 6 pt, 100% black.

10 **Numbering of the Regulation**: Calibri bold 10 pt, 100% black

11 **Supplier's name or trademark**

12 **Supplier's model identifier**

13 The suppliers' name or trade mark and model identifier should fit in a space of 70 x 13 mm.
1.2. Gas ovens

1.2.1 Label presentation – for each cavity of a gas oven

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
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 oven model from other models with the same trade mark or supplier’s name;

III Energy source of the 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\(^4\) (gas consumption) for the heating function(s) (conventional and/or the forced air convection) of the cavity based on standard load determined in accordance with the test procedures, rounded to the second decimal place (\(EC_{\text{gas cavity}}\)).

\[^4\] 1 kWh/cycle = 3.6 MJ/cycle
1.2.3 Label design – gas ovens

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

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
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):

1. **Border stroke**: 4 pt – colour: cyan 100% – round corners: 3 mm.

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

3. **Energy logo**: colour: X-00-00-00;
   pictogram as depicted: EU logo + energy label: width: 70 mm, height: 14 mm.

4. **Sub-logos border**: 1.5 pt – colour: cyan 100% – length: 70 mm.

5. **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.

6. **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.

7. **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.

8 **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.

9 **Asterisk**: Calibri regular 6 pt, 100% black.

10 **Numbering of the Regulation**: Calibri bold 10 pt, 100% black

11 **Supplier's name or trademark**

12 **Supplier's model identifier**

13 The suppliers' name or trade mark and model identifier should fit in a space of 70 x 13 mm.
2. **LABEL FOR RANGE HOODS**

2.1 **Label formats**

2.1.1 *Range hoods in energy efficiency classes A to G*

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
2.1.2 Range hoods in energy efficiency classes A+ to F

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
2.1.3  Range hoods in energy efficiency classes A++ to E

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
2.1.4 Range hoods in energy efficiency classes A+++ to D

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
2.2 Label information – 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 range hood model from other models with the same trade mark or supplier’s name;

III. The energy efficiency class of the range hood, determined in accordance with Annex I. The head of the arrow containing the energy efficiency class of the range hood shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;

IV. Annual energy consumption (AEC\textsubscript{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 Annex II.2.e, rounded to the nearest integer.
2.3 Label design – range hoods

The design of the label shall be as in the following figure:

[N.B.: Numbering of the Regulation to be added on the label before publication in the OJ]
Whereby:

(i) The label shall be at least 60 mm wide and 120 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):

1. **Border stroke**: 3 pt – colour: Cyan 100% – round corners: 2 mm.
2. **EU logo**: colours: X-80-00-00 and 00-00-X-00.
3. **Energy logo**: colour: X-00-00-00. Pictogram as depicted: EU logo + energy label: width: 51 mm, height: 10 mm.
4. **Sub-logos border**: 1 pt – colour: Cyan 100% – length: 51 mm.
5. **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.
6. **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.
7. **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.

### 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.

### 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.

### 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.

### 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.

### Numbering of the Regulation: Calibri bold 8 pt, 100% black

### Supplier's name or trademark

### Supplier's model identifier

The suppliers' name or trade mark and model identifier should fit in a space of 51 x 9 mm.
ANNEX IV

Fiche

A. FICHE FOR OVENS

1. The information in the product fiche of the ovens referred to in Chapter 3(1)(a)(ii) shall be given in the order specified below, or given in the description of the appliance. The following notes define the information to be included in the fiche of the oven:

a) supplier's name or trade mark;

b) supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific ventilation appliance model from other models with the same trade mark or supplier’s name and with different declared values for any of the parameters included in the label for the oven (Annex III, point 1);

c) the energy efficiency index (EEI_{cavity}) for each cavity of the model calculated in accordance with Annex II point 1 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 Annex I, Table 1; the declared class shall not be better 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 the Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009, a copy of the eco-label may be added.

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

4. The information contained in the fiche may be given in the form of a copy of the label 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 RANGE HOODS

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

a) supplier's name or trade mark;

b) supplier's model identifier which means the code, usually alphanumeric, which distinguishes a specific ventilation appliance model from other models with the same trade mark or supplier’s name and with different declared values for any of the parameters included in the label for the range hood (Annex III, point 2);

c) the Annual Energy Consumption ($AEC_{\text{hood}}$) calculated according to Annex II point 2, 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 Annex I, Table 2; the declared class shall not be better than the class reported in the technical documentation in Annex V;

e) the Fluid Dynamic Efficiency ($FDE_{\text{hood}}$) calculated according to Annex II point 2, 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 Annex I, Table 3; the declared class shall not be better than the class reported in the technical documentation in Annex V;

g) the Lighting Efficiency ($LE_{\text{hood}}$) calculated according to Annex II point 2, in lux/Watt and rounded to the first decimal place; the declared value shall not be higher than the value reported in the technical documentation in Annex V;

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

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

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

1. The technical documentation referred to in Chapter 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 ventilation appliance model from other models with the same trade mark or supplier’s name and with different declared values for any of the parameters included in the label for the oven (Annex III, point 1); the general description shall include the following information:

      1) the number of cavities;

      2) the volume of each cavity;

      3) the heat source(s) per cavity;

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

      5) 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;

      6) the energy efficiency index \( E_{EI_{cavity}} \) for each cavity of the oven calculated in accordance with Annex II point 1 and rounded to the first decimal place;

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

      8) a copy of the calculation;

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

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

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

2. Suppliers may include additional information at the end of the above list.
B. TECHNICAL DOCUMENTATION FOR RANGE HOODS

1. The technical documentation referred to in Chapter 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 ventilation appliance model from other models with the same trade mark or supplier’s name and with different declared values for any of the parameters included in the label for the range hood (Annex III, point 2); the general description shall include the following information:

      1) the Energy Efficiency Index \( \text{EEI}_{\text{hood}} \) calculated in accordance with Annex II point 2 and rounded to the first decimal place;

      2) the Energy Efficiency class, as defined in Annex I, Table 2;

      3) the Annual Energy Consumption \( \text{AEC}_{\text{hood}} \) calculated in accordance with Annex II point 2, in kWh/a and rounded to the first decimal place;

      4) the time increase factor \( f \), in accordance with Annex II point 2, rounded to the first decimal place;

      5) the Fluid Dynamic Efficiency \( \text{FDE}_{\text{hood}} \) calculated according to Annex II point 2, rounded to the first decimal place;

      6) the Fluid Dynamic Efficiency class, as defined in Annex I, Table 3;

      7) the measured flow rate of the range hood at the best efficiency point \( Q_{\text{BEP}} \), in m³/h and rounded to the nearest integer;

      8) the measured value of the static pressure difference of the range hood at the best efficiency point \( P_{\text{BEP}} \), in Pa and rounded to the nearest integer;

      9) the measured value of the electric power input of the range hood at the best efficiency point \( W_{\text{BEP}} \), in Watt and rounded to the first decimal place;

     10) the average illumination of the lighting system on the cooking surface \( E_{\text{middle}} \), 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$_{\text{hood}}$) calculated according to Annex II point 2, in lux/Watt and rounded to the nearest integer;

13) the Lighting Efficiency class, as defined in Annex I, Table 4;

14) the measured value of the Grease Filtering Efficiency (GFE$_{\text{hood}}$) calculated according to Annex II point 2, rounded to the first decimal place;

15) the Grease Filtering Efficiency class, as defined in Annex I, Table 5;

16) if applicable the power consumption in off mode, ($P_o$), in Watt and rounded to the second decimal place;

17) if applicable the power consumption in standby mode ($P_s$), in Watt and rounded to the second decimal place;

18) the airborne acoustical A-weighted sound power emissions at minimum and maximum speed available in normal use, in dB rounded to the 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 range hood at minimum and maximum speed available in normal use, in m$^3$/h and rounded to the nearest integer;

21) if present, the air flow value of the range hood at intensive or boost setting, in m$^3$/h and rounded to the nearest integer;

22) a copy of the calculations.

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

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

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

f) test parameters for measurements:
   - ambient temperature;
   - test voltage in Volt and frequency in Hz.

2. Suppliers may include additional information at the end of the above list.
ANNEX VI
Information to be provided where end-users cannot be expected to see the product displayed

A. OVENS

1. The information referred to in Chapter 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 indoor and of the outdoor elements of the combination to which the figures quoted below apply;
   c) the energy efficiency class of the model for each cavity as defined in Annex I, Table 1;
   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;
   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 in this Annex is printed or shown, shall be legible.

B. RANGE HOODS

1. The information referred to in Chapter 4(2)(b) shall be provided in the following order:
   a) supplier's name or trade mark;
   b) supplier's model identifier, i.e. the model identifier of the indoor and of the outdoor elements of the combination to which the figures quoted below apply;
   c) the energy efficiency class of the model as defined in Annex I, Table 2;
   d) the annual energy consumption of the model in kWh, as defined in Annex II, point 2(1);
   e) the fluid dynamic efficiency class of the model as defined in Annex I, Table 3;
   f) the lighting efficiency class of the model as defined in Annex I, Table 4;
   g) the grease filtering efficiency class of the model as defined in Annex I, Table 5;
h) the airborne acoustical A-weighted sound power emissions (weighted average value - \(L_{WA}\)) of a range hood at minimum and maximum speed available in normal use, in dB rounded to the nearest integer.

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 in this Annex is printed or shown shall be legible.
ANNEX VII
Verification procedure for market surveillance purposes

For the purposes of assessing conformity with the requirements laid down in Chapters 3 and 4, the authorities of the Member States shall apply the following verification 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 if the values and classes on the label and in the product fiche correspond to the values in the technical documentation and if testing of the relevant model parameters listed in Table 6 shows compliance for all of those parameters.

3. If the result referred to in point 2 is not achieved, the Member State authorities shall randomly 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 manufacturer's technical documentation.

4. The model shall be considered to comply with the applicable requirements if testing of the relevant model parameters listed in Table 4 shows compliance for all of those parameters.

5. If the results referred to in point 4 are not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.

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

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation. The values and classes on the label or in the product fiche shall not be more favourable for the supplier than the values reported in the technical documentation.

<table>
<thead>
<tr>
<th>Measured parameters</th>
<th>Verification tolerances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total nominal power for electric oven (P)</td>
<td>The determined value(*) shall not exceed the declared value of P by more than 5%.</td>
</tr>
<tr>
<td>Total nominal heat input for gas oven (HI)</td>
<td>The determined value(*) shall not exceed the declared value of HI by more than 5%.</td>
</tr>
<tr>
<td>Mass of the oven (M)</td>
<td>The determined value(*) shall not exceed the declared value of M by more than 5%.</td>
</tr>
<tr>
<td>Volume of the cavity of the oven (V)</td>
<td>The determined value(*) shall not exceed the declared value of V by more than 5%.</td>
</tr>
<tr>
<td>Nominal power for electric cavity (P)</td>
<td>The determined value(*) shall not exceed the declared value of P by more than 5%.</td>
</tr>
<tr>
<td>Nominal heat input for gas cavity (P)</td>
<td>The determined value(*) shall not exceed the declared value of P by more than 5%.</td>
</tr>
<tr>
<td>EEI_{cavity}, EC_{electric cavity}, EC_{gas cavity}</td>
<td>The determined value(*) shall not exceed the declared value of EEI_{cavity}, EC_{electric cavity}, EC_{gas cavity} by more than 5%.</td>
</tr>
<tr>
<td>Component Description</td>
<td>Specification</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Total nominal power for electric hob (P&lt;sub&gt;tot&lt;/sub&gt;)</td>
<td>The determined value(*) shall not exceed the declared value of P&lt;sub&gt;tot&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>Total nominal heat input for gas hob (H&lt;sub&gt;tot&lt;/sub&gt;)</td>
<td>The determined value(*) shall not exceed the declared value of H&lt;sub&gt;tot&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>Power per electric heated cooking zone and/or area (P)</td>
<td>The determined value(*) shall not exceed the declared value of P by more than 5%.</td>
</tr>
<tr>
<td>Power per burner (P)</td>
<td>The determined value(*) shall not exceed the declared value of P by more than 5%.</td>
</tr>
<tr>
<td>EC&lt;sub&gt;electric cooking&lt;/sub&gt;, EE&lt;sub&gt;gas burner&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of EC&lt;sub&gt;electric cooking&lt;/sub&gt;, EE&lt;sub&gt;gas burner&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>EEI&lt;sub&gt;hood&lt;/sub&gt;, AEC&lt;sub&gt;hood&lt;/sub&gt;, W&lt;sub&gt;BEP&lt;/sub&gt;, W&lt;sub&gt;L&lt;/sub&gt;, P&lt;sub&gt;o&lt;/sub&gt;, P&lt;sub&gt;s&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of EEI&lt;sub&gt;hood&lt;/sub&gt;, AEC&lt;sub&gt;hood&lt;/sub&gt;, W&lt;sub&gt;BEP&lt;/sub&gt;, W&lt;sub&gt;L&lt;/sub&gt;, P&lt;sub&gt;o&lt;/sub&gt;, P&lt;sub&gt;s&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>FDE&lt;sub&gt;hood&lt;/sub&gt;, Q&lt;sub&gt;BEP&lt;/sub&gt;, P&lt;sub&gt;BEP&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of FDE&lt;sub&gt;hood&lt;/sub&gt;, Q&lt;sub&gt;BEP&lt;/sub&gt;, P&lt;sub&gt;BEP&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>Q&lt;sub&gt;max&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of Q&lt;sub&gt;max&lt;/sub&gt; by more than 8%.</td>
</tr>
<tr>
<td>LE&lt;sub&gt;hood&lt;/sub&gt;, E&lt;sub&gt;middle&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of LE&lt;sub&gt;hood&lt;/sub&gt;, E&lt;sub&gt;middle&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>GFE&lt;sub&gt;hood&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value of GFE&lt;sub&gt;hood&lt;/sub&gt; by more than 5%.</td>
</tr>
<tr>
<td>Sound power level L&lt;sub&gt;WA&lt;/sub&gt;</td>
<td>The determined value(*) shall not exceed the declared value.</td>
</tr>
</tbody>
</table>

(*) The arithmetic average of the values determined in the case of three additional units tested as prescribed in point 3.