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EUROPEAN COMMISSION

Brussels, xxx
C(2010) yyy final

Draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of [...]

**implementing Directive 2010/..EU of the European Parliament and of the Council with
regard to energy labelling of household washing machines**

EXPLANATORY MEMORANDUM

(1) CONTEXT OF THE PROPOSAL

• Grounds for and objectives of the proposal

Household washing machines are covered by *Commission Directive 95/12/EC implementing Council Directive 92/75/EEC with regard to energy labelling of household washing machines*. The scheme provides standardised information on energy consumption of household dishwashers by means of a ranking of products on a scale from A to G.

Since recent market transformation calls for a revision of the labelling scheme, the *Action Plan for Energy Efficiency: Realising the Potential*¹ identified ‘wet’ household appliances (i.e. household washing machines and dishwashers) as one of the 14 priority product groups for which an update of the existing labelling scheme is needed.

The aim of this delegated Regulation is to introduce new, more ambitious, energy efficiency classes in order to adapt them to technological developments and introduce more dynamism into the scheme. It complements the draft Commission Regulation implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household washing machines.

• General context

The market failure can be explained by the fact that energy-efficient household washing machines are usually more expensive at the time of purchase, even if they have significant cost savings potential over the life cycle. The benefits are often unclear or irrelevant to the person making the purchasing decision.

This problem has been addressed over the last 12 years by the labelling scheme set out in Directive 95/12/EC, leading to an energy efficiency improvement of 24 %.

However, with 90 % of products in class A, the labelling scheme no longer leaves any room for product differentiation despite the technological potential.

According to the preparatory study, the total stock of household washing machines of 167 million units was responsible for 35 TWh annual electricity consumption and 18 Mt CO₂ equivalent in 2005 in the EU-27, increasing to 37.7 TWh in 2020 without further actions. It is estimated that the combined effect of the proposed ecodesign requirements and revised labelling scheme would lead to a reduction of 1.5 TWh in 2020 and 2.7 TWh in 2025 compared to the baseline scenario.

• Existing provisions in the area of the proposal

In addition to the draft Commission Regulation implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household washing machines, the following measures are relevant for household washing machines:

¹ COM(2006) 545.

- Directive 2006/95/EC² of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (the Low Voltage Directive or LVD);
- Directive 2002/96/EC³ of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (the WEEE Directive);
- Directive 2002/95/EC⁴ of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (the RoHs Directive);
- Regulation (EC) No 66/2010⁵ of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel;
- Commission Regulation No 1275/2008 implementing Directive 2005/32/EC with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment⁶.

It was decided to exclude household washing machines equipped with a sensor-based safety function (designed to avoid water leakages) from the horizontal requirements on standby which are laid down in that Regulation⁷. The proposed new algorithm developed for the calculation of the Energy Efficiency Index of household dishwashers on which the energy efficiency classes are based considers the overall annual energy consumption including the energy consumption of the two low-power modes, thus ensuring that further energy efficiency improvements are achieved on these parameters.

- **Consistency with other EU policies and objectives**

Increased market take-up of energy-efficient household washing machines, through the introduction of a revised energy labelling scheme, will contribute to achieving the 20% energy savings potential anticipated by 2020 in the Energy Efficiency Action Plan (COM(2006) 545).

Furthermore, implementation of Directive 2010/.../EC⁸ contributes to the EU's objective to attain a reduction in greenhouse gases of at least 20% in 2020.

Promotion of market take-up of efficient household washing machines complies with the Lisbon and renewed Sustainable Development Strategy as it will encourage investment in R&D and make for a level playing field. It is also in line with the Sustainable Consumption, Production and Industrial Policy Action Plan (COM(2008) 397).

Finally, it will contribute to the objective of decoupling economic growth from the use of resources set out in the Europe 2020 strategy (COM(2010) 2020) under the flagship initiative: 'resource efficient Europe'.

² OJ L 374, 27.12.2006, p. 10.

³ OJ L 37, 13.2.2003, p.24.

⁴ OJ L 37, 13.2.2003, p. 19.

⁵ OJ L 27, 30.1.2010, p. 1–19.

⁶ OJ L 339, 18.12.2008, p. 45.

⁷ If the machine does not provide in such protection function(s), the two modes are subject to the specific requirements of the standby Regulation.

⁸ Numbering of the recast of Directive 92/75/EEC to be added as soon as it is published in the OJ

(2) CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

• Consultation of interested parties

Consultation methods, main sectors targeted and general profile of respondents

Stakeholders were consulted from the very beginning of the preparatory study as well as through several public consultations held on 4 December 2008 and 26 March 2010, gathering representatives of Member States, environmental NGOs, European consumer organisations, suppliers and distributors.

Commission staff presented on 26 March 2010 a refined working document for public consultation of all experts, adapting energy efficiency classes in line with Article 10(4)(d) of Directive 2010/.../EU⁹. The working document was sent out one month before the meeting and uploaded to the Commission's CIRCA system alongside the stakeholder comments received in writing.

Summary of responses and how they have been taken into account

All respondents throughout the consultation process generally supported the setting of new energy efficiency classes with comments on the following issues:

- Some stakeholders suggested introducing class A+++ from the start on the label on the ground that this class could be already populated by some extremely efficient models from the first date of application of the draft delegated Regulation. The draft act was amended accordingly.
- The draft delegated Regulation initially proposed that all household washing machines — including those placed on the market before the application of the new label — would be labelled and displayed at the point of sale in accordance with the new provisions and label format from 16 months after publication of the measure in the OJ. However, a majority of stakeholders and experts supported the view that appliances placed on the market before the entry into effect of the new measures should be allowed to be labelled and displayed at the point of sale in accordance with Directive 97/17/EC. The draft delegated Regulation was amended accordingly.
- Stakeholders, in particular suppliers and distributors, emphasised that they needed a transitional period between the first application date of the new label (12 months after publication in the OJ) and the date of mandatory display of the new classes in advertisements and technical promotional material. This 4-month transitional period is necessary for them to adapt and publish their promotional material, catalogues or websites. The draft delegated Regulation therefore integrates this time constraint.
- Revision of the calculation of the energy consumption of household washing machines was discussed with a view to better reflecting real-life energy consumption. In addition, a number of stakeholders raised concerns about the current Energy Efficiency Index (EEI) on which the energy efficiency classes are based, which seemed to be more 'advantageous' to larger washing machines (capacities 6.5

⁹ Numbering of the recast of Directive 92/75/EEC to be added as soon as it is published in the OJ

kg and higher) than to smaller machines. The assessment of the impact of different formulae for the calculation of the EEI demonstrated that they would have limited or no impact in terms of energy savings compared to the (3+3+2) formula proposed at the consultation forum and developed within the framework of the preparatory study.

- Some stakeholders asked for the measurement uncertainty to be reduced. The proposed Regulation provides for the measurement uncertainty to be reduced from 15 % to 10 %. The scope for further reduction should be assessed in the light of the round robin test to be carried out in the near future under the mandate issued to Cenelec for the design of a new testing standard.
- A ranking of rinsing efficiency was advocated by many stakeholders, but no relevant testing standard exists to assess this performance at this stage. The mandate issued to the standardisation bodies for the development of a harmonised standard explicitly requested the development of a testing standard on rinsing efficiency so that this parameter could be considered when the delegated Regulation is revised.

- **Collection and use of expertise**

Scientific/expertise domains concerned

The preparatory study run on household washing machines within the framework of the ecodesign Directive 2009/125/EC (former Directive 2005/32/EC) provided a solid technical, environmental and economic analysis which was directly relevant for energy labelling. It was carried out by consortia of external consultants on behalf of the Commission's Directorate-General for Transport and Energy (DG TREN), now the Directorate-General for Energy (DG ENER), and submitted for scrutiny to the stakeholders from the very start.

Main organisations/experts consulted

The preparatory studies were conducted in an open process that took into account input from relevant stakeholders, including manufacturers and manufacturing associations, environmental NGOs, consumer organisations, EU/EEA Member State experts and international organisations such as the International Energy Agency (IEA).

Summary of advice received and used

No potentially serious risks with irreversible consequences were mentioned.

The technical, market and economic analysis carried out in the framework of the preparatory study resulted in recommendations on ecodesign requirements and labelling. These recommendations were used as a basis for suggesting possible energy efficiency classes for public consultation.

Means used to make the expert advice publicly available

The preparatory study was given a dedicated website where interim results and further relevant materials were published regularly for timely stakeholder consultation and input. Written submissions from stakeholders are listed in the final reports. The study website was promoted on the ecodesign-specific websites of the former Transport and Energy DG (now DG ENER) and the Enterprise and Industry DG.

- **Impact assessment**

Labelling has to be considered together with other policy options such as self-regulation or the setting of minimum performance (energy efficiency) requirements. An impact assessment was carried out pursuant to Article 15(4)(b) of Directive 2005/32/EC which also examined the option of labelling. The options listed below were discarded at an early stage:

- no EU action (legislation currently in place would not be amended, no new legislation would be adopted);
- support a voluntary commitment (none was tabled);
- adopt new ecodesign requirements only (with no revision of the labelling scheme);
- revise the labelling scheme only (with no new ecodesign requirements).

The option which appeared the most appropriate and which was also advocated by all stakeholders was to revise the labelling scheme and adopt ecodesign requirements in a coordinated approach.

It will ensure that:

- ongoing energy improvements are maintained and fostered;
- fair competition and product differentiation continues to operate on energy improvements;
- the cost-effective level of energy consumption is reached;
- the competitiveness of the industry is supported through the expansion of the EU internal market for sustainable products;
- the burdens on suppliers including SMEs are not excessive, as the transition periods take redesign cycles into account;
- there is no negative impact on employment in the EU.

(3) LEGAL ELEMENTS OF THE PROPOSAL

- **Summary of the proposed action**

The measure sets out new mandatory information requirements for placing household washing machines on the market and displaying labels at the point of sale to allow end-users to be informed on their energy consumption during use. New energy efficiency classes A+, A++ and A+++ are introduced on the label on top of class A as well as requirements related to the advertising of those appliances.

- **Legal basis**

The draft delegated Regulation implements Directive 2010/.../EU¹⁰, and in particular Article 10 thereof. It is based on Article 194 TFEU.

- **Subsidiarity principle**

The draft delegated Regulation implements Directive 2010/.../EU¹¹ in line with Article 10.

- **Proportionality principle**

In accordance with the principle of proportionality, this measure does not go beyond what is necessary in order to achieve the objective.

The form of the implementing measure is a delegated Regulation which is directly applicable in all Member States. This ensures that national and EU administrations will not incur any costs for transposition of the implementing legislation into national legislation.

In terms of conformity assessment, there are no extra costs with respect to the current situation, where energy labelling is already mandatory.

- **Choice of instrument**

Proposed instrument: delegated Regulation.

Other means would not be adequate for the following reasons.

The proposed form of action is a delegated Regulation (implementing framework Directive 2010/.../EU¹²), because the objectives of the action can be achieved most efficiently by fully harmonised requirements (including timely entry into force) throughout the EU, ensuring free movement of compliant appliances and avoiding market fragmentation.

4) BUDGETARY IMPLICATION

The proposal has no implication for the EU budget.

(5) ADDITIONAL INFORMATION

- **Review/revision/sunset clause**

The proposal includes a revision clause.

- **European Economic Area**

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.

¹⁰ Numbering of the recast of Directive 92/75/EEC to be added as soon as it is published in the OJ

¹¹ Numbering of the recast of Directive 92/75/EEC to be added as soon as it is published in the OJ

¹² Numbering of the recast of Directive 92/75/EEC to be added as soon as it is published in the OJ

Draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of [...]

implementing Directive 2010/..EU of the European Parliament and of the Council with regard to energy labelling of household washing machines

THE EUROPEAN COMMISSION,

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

Having regard to Directive 2010/..EU of the European Parliament and of the Council on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products¹³, and in particular Article 10 thereof,

Whereas:

- (1) Directive 2010/..EU requires the Commission to adopt delegated acts as regards the labelling of energy-related products representing significant potential for energy savings and having a wide disparity in performance levels with equivalent functionality.
- (2) Provisions on the energy labelling of household washing machines were established by Commission Directive 95/12/EC of 23 May 1995 implementing Council Directive 92/75/EEC with regard to energy labelling of household electric washing machines¹⁴.
- (3) The electricity used by household washing machines accounts for a significant share of total household electricity demand in the Union. In addition to the energy efficiency improvements already achieved, the scope for further reducing the energy consumption of household washing machines is substantial.
- (4) Commission Directive 95/12/EC should be repealed and new provisions should be laid down by this Regulation in order to ensure that the energy label provides dynamic incentives for suppliers to further improve the energy efficiency of household washing machines and to accelerate the market transformation towards energy-efficient technologies.
- (5) Household combined washer-driers fall within the scope of Commission Directive 96/60/EC of 19 September 1996 implementing Council Directive 92/75/EEC with

¹³ [NOTE: Directive number and OJ L reference to be inserted as soon as it is known, i.e. after the final adoption and publication of the recast of Directive 1992/75/EEC –expected around May/June 2010]

¹⁴ OJ L 47, 24.2.1996, p. 35.

regard to energy labelling of household combined washer-driers¹⁵ and should therefore be excluded from the scope of this Regulation. However, considering that they offer similar functionalities to household washing machines, a revision of Directive 96/60/EC should take place as soon as possible.

- (6) The information provided on the label should be obtained through reliable, accurate and reproducible measurement procedures, which take into account the recognised state-of-the-art 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 services¹⁶.
- (7) This Regulation should specify a uniform design and content for the label for household washing machines.
- (8) In addition, this Regulation should specify requirements as to the technical documentation and the fiche for household washing machines.
- (9) Moreover, this Regulation should specify requirements as to the information to be provided for any form of distance selling, advertisements and technical promotional materials for household washing machines.
- (10) It is appropriate to provide for a review of the provisions of this Regulation taking into account technological progress.
- (11) In order to facilitate the transition from Directive 95/12/EC to this Regulation, provisions should be made that household washing machines labelled in accordance with this Regulation should be considered as compliant with Directive 95/12/EC.
- (12) Directive 95/12/EC should therefore be repealed,

HAS ADOPTED THIS REGULATION:

Article 1
Subject matter and scope

1. This Regulation establishes requirements for the labelling of and the provision of supplementary product information on electric mains-operated household washing machines and electric mains-operated household washing machines that can also be powered by batteries, including those sold for non-household use and built-in household washing machines.
2. This Regulation shall not apply to household combined washer-driers.

¹⁵ OJ L 266, 18.10.1996, p. 1.

¹⁶ OJ L 204, 21.7.1998, p. 37.

Article 2 *Definitions*

In addition to the definitions laid down in Article 2 of Directive 2010/.../EU, the following definitions shall apply for the purposes of this Regulation:

- (1) “household washing machine” means an automatic washing machine which cleans and rinses textiles using water, which also has a spin extraction function and which is designed to be used principally for non-professional purposes;
- (2) “built-in household washing machine” means a household washing machines intended to be installed in a cabinet, a prepared recess in a wall or a similar location, requiring furniture finishing;
- (3) “automatic washing machine” means a washing machine where the load is fully treated by the machine without the need for user intervention at any point during the programme;
- (4) “household combined washer-drier” means a household washing machine which includes both a spin extraction function and also a means for drying the textiles, usually by heating and tumbling;
- (5) “programme” means a series of operations that are pre-defined and which are declared by the supplier as suitable for washing certain types of textile;
- (6) “cycle” means a complete washing, rinsing and spinning process, as defined for the selected programme;
- (7) “programme time” means the time that elapses from the initiation of the programme until the completion of the programme excluding any end-user programmed delay;
- (8) “rated capacity” means the maximum mass in kilograms stated by the supplier at 0.5 kg intervals of dry textiles of a particular type, which can be treated in a household washing machine on the selected programme, when loaded in accordance with the supplier's instructions;
- (9) “partial load” means half of the rated capacity of a household washing machine for a given programme;
- (10) “remaining moisture content” means the amount of moisture contained in the load at the end of the spinning phase;
- (11) “off-mode” means a condition where the household washing machine is switched off using appliance controls or switches accessible to and intended for operation by the end-user during normal use to attain the lowest power consumption that may persist for an indefinite time while the household washing machine is connected to a power source and used in accordance with the supplier’s instructions; where there is no control or switch accessible to the end-user, ‘off-mode’ means the condition reached after the household washing machine reverts to a steady-state power consumption on its own;

- (12) “left-on mode” means the lowest power consumption mode that may persist for an indefinite time after completion of the programme without any further intervention by the end-user besides unloading of the household washing machine;
- (13) “equivalent washing machine” means a model of household washing machine placed on the market with the same rated capacity, technical and performance characteristics, energy and water consumption and airborne acoustical noise emissions during washing and spinning as another model of household washing machine placed on the market under a different commercial code number by the same supplier;
- (14) “end-user” means a consumer buying or expected to buy a household washing machine;
- (15) “point of sale” means a location where household washing machines are displayed or offered for sale, hire or hire-purchase.

*Article 3
Responsibilities of suppliers*

Suppliers shall ensure that:

- (a) each household washing machine, is supplied with a printed label in the format and containing information as set out in Annex I;
- (b) a product fiche, as set out in Annex II, is made available;
- (c) the technical documentation as set out in Annex III is made available on request to the authorities of the Member States and to the Commission;
- (d) any advertisement for a specific model of household washing machine contains the energy efficiency class, if the advertisement discloses energy-related or price information;
- (e) any technical promotional material concerning a specific model of household washing machine which describes its specific technical parameters includes the energy efficiency class of that model.

*Article 4
Responsibilities of dealers*

Dealers shall ensure that:

- (a) each household washing machine, at the point of sale, bears the label provided by suppliers in accordance with Article 3(a) on the outside of the front or top of the household washing machine, in such a way as to be clearly visible;
- (b) household washing machines offered for sale, hire or hire-purchase where the end-user cannot be expected to see the product displayed are marketed with the information to be provided by suppliers in accordance with Annex IV;

- (c) any advertisement for a specific model of household washing machine contains a reference to its energy efficiency class, if the advertisement discloses energy-related or price information;
- (d) any technical promotional material concerning a specific model of household washing machine, which describes its specific technical parameters includes a reference to the energy efficiency class of that model.

Article 5
Measurement 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 measurement methods.

Article 6
Verification procedure for market surveillance purposes

Member States shall apply the procedure laid down in Annex V when assessing the conformity of the declared energy efficiency class, the annual energy consumption, annual water consumption, spin-drying efficiency class, power consumption in off-mode and left-on mode, duration of the left-on mode, remaining moisture content, spin speed and airborne acoustical noise emissions.

Article 7
Revision

The Commission shall review this Regulation in the light of technological progress no later than five years after its entry into force. The review shall in particular assess the verification tolerances set out in Annex V.

Article 8
Repeal

Directive 95/12/EC shall be repealed from [date to be inserted: 12 months after entry into force].

Article 9
Transitional provisions

1. Articles 3 (d) and (e) and Article 4 (b), (c) and (d) shall not apply to printed advertisements and printed technical promotional material published before [date to be inserted: 16 months after entry into force of this Regulation].
2. Household washing machines placed on the market before [date to be inserted: 12 months after entry into force of this Regulation] shall comply with the provisions set out in Directive 95/12/EC.

3. Household washing machines, which comply with the provisions of this Regulation and which are placed on the market or offered for sale, hire or hire-purchase before [date to be inserted: 12 months after entry into force of this Regulation] shall be regarded as complying with the requirements of Directive 95/12/EC.

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 [date to be inserted: 12 months after entry into force of this Regulation]. However, Article 3 (d) and (e) and Article 4 (b), (c) and (d) shall apply from [date to be inserted: 16 months after entry into force of this Regulation]

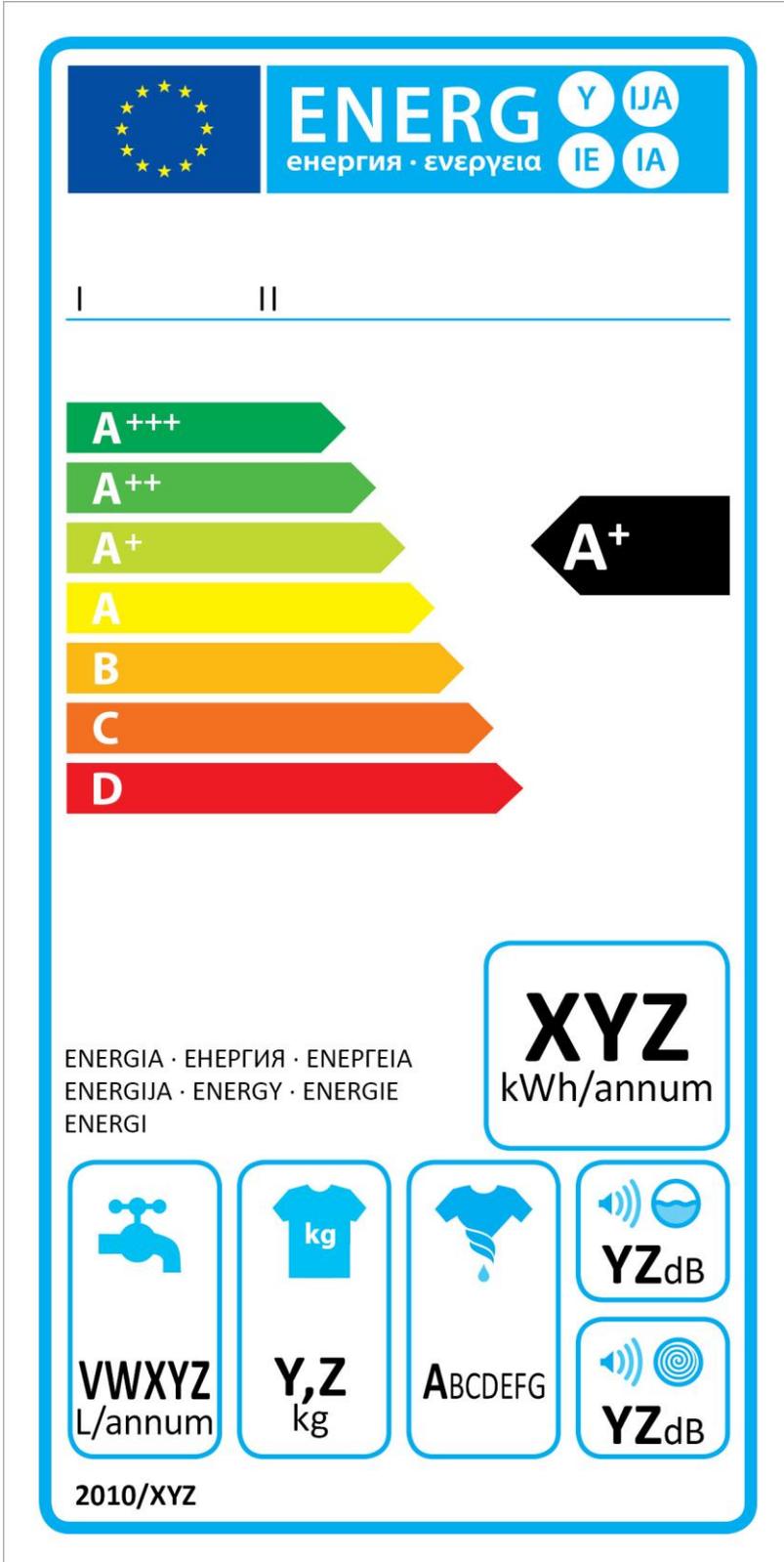
This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, [...]

For the Commission
The President

ANNEX I
Label

1. LABEL



I
II

III

IV

V
VI
VII
VIII

[* Numbering of the Regulation to be added on the label before publication in the OJ]

(1) The following information shall be included in the label:

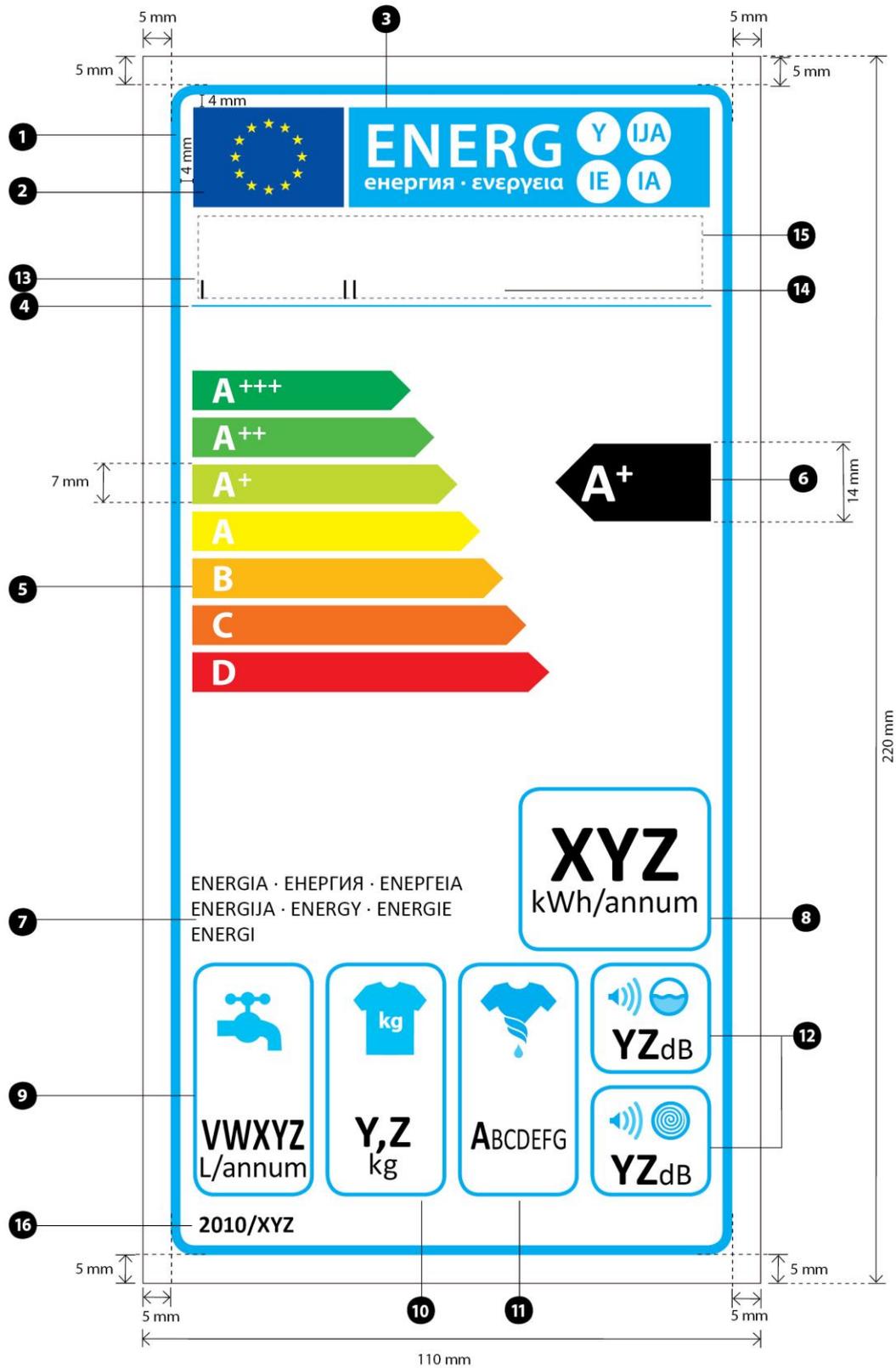
- I. supplier's name or trade mark;
- II. supplier's model identifier, meaning the code, usually alphanumeric, which distinguishes a specific household washing machine model from other models with the same trade mark or supplier's name;
- III. the energy efficiency class determined in accordance with point 1 of Annex VI; the head of the arrow containing the energy efficiency class of the household washing machine shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;
- IV. weighted annual energy consumption (AE_C) in kWh per year, rounded up to the nearest integer in accordance with Annex VII;
- V. weighted annual water consumption (AW_C), in litres per year, rounded up to the nearest integer in accordance with Annex VII;
- VI. rated capacity, in kg, for the standard 60 °C cotton programme at full load or the standard 40 °C cotton programme at full load, whichever is the lower;
- VII. the spin-drying efficiency class as set out in point 2 of Annex VI;
- VIII. airborne acoustical noise emissions, during the washing and spinning phases, for the standard 60°C cotton programme at full load, expressed in dB(A) re 1 pW, rounded to the nearest integer.

(2) The design of the label shall be in accordance with point 2. By way of derogation, where a model has been awarded an 'EU Ecolabel' under Regulation (EC) No 66/2010¹⁷ of the European Parliament and of the Council, a copy of the EU Ecolabel may be added.

¹⁷ OJ L 27, 30.1.2010, p. 1–19.

2. LABEL DESIGN

The design of the label shall be as in the figure below.



[* Numbering of the Regulation to be added on the label before publication in the OJ]

Whereby:

- (a) The label must be at least 110 mm wide and 220 mm high. Where the label is printed in a larger format, its content must nevertheless remain proportionate to the specifications above.
- (b) The background shall be white.
- (c) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.
- (d) The label shall fulfil all of the following requirements (numbers refer to the figure above):
 - ① **Border stroke:** 5 pt – colour: Cyan 100% – round corners: 3.5 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 and energy logo (combined): width: 92 mm, height: 17 mm.
 - ④ **Sub-logos border:** 1 pt – colour: Cyan 100% – length: 92.5 mm.
 - ⑤ **A-G scale**
 - **Arrow:** height: 7 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 18 pt, capitals and white; '+' symbols: Calibri bold 12 pt, capitals, white, aligned on a single row.
 - ⑥ **Energy efficiency class**
 - **Arrow:** width: 26 mm, height: 14 mm, 100% black;
 - **Text:** Calibri bold 29 pt, capitals and white; '+' symbols: Calibri bold 18 pt, capitals, white, aligned on a single row.
 - ⑦ **Energy:** text: Calibri regular 11 pt, capitals, black.
 - ⑧ **Weighted annual energy consumption**
 - **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm.
 - **Value:** Calibri bold 42 pt, 100% black; and Calibri regular 17 pt, 100% black.

9 Weighted annual water consumption

– **Pictogram as depicted**

– **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm.

– **Value:** Calibri bold 24 pt, 100% black; and Calibri regular 16pt, 100% black.

10 Rated capacity

– **Pictogram as depicted**

– **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm.

– **Value:** Calibri bold 24 pt, 100% black; and Calibri regular 16pt, 100% black.

11 Spin-drying efficiency class

– **Pictogram as depicted**

– **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm.

– **Value:** Calibri regular 16 pt, horizontal scale 75%, 100% black and Calibri Bold 22 pt, horizontal scale 75%, 100% black.

12 Airborne acoustical noise emissions

– **Pictograms as depicted**

– **Border:** 2 pt – colour: Cyan 100% – round corners: 3.5 mm.

– **Value:** Calibri bold 24 pt, 100% black; and Calibri regular 16pt, 100% black.

13 Supplier's name or trade mark

14 Supplier's model identifier

15 The supplier's name or trademark and model identifier should fit in a space of 92 x 15 mm.

16 Numbering of the Regulation: Calibri bold 12 pt, 100% black.

ANNEX II
Product Fiche

1. The information in the product fiche of the household washing machine shall be provided in the following order or shall be included in the product brochure or other literature that accompanies the household washing machine when sold to end-users:
 - (a) supplier's name or trade mark;
 - (b) supplier's model identifier, meaning the code, usually alphanumeric, which distinguishes a specific household washing machine model from other models with the same trade mark or supplier's name;
 - (c) rated capacity in kg of cotton for the standard 60°C cotton programme at full load or the 40°C cotton programme at full load, whichever is the lower;
 - (d) energy efficiency class in accordance with point 1 of Annex VI;
 - (e) where the household washing machine has been awarded an 'EU Ecolabel award' under Regulation (EC) No 66/2010 of the European Parliament and of the Council¹⁸, this information may be included;
 - (f) weighted annual energy consumption (AE_C) in kWh per year, rounded up to the nearest integer; it shall be described as: 'Energy consumption "X" kWh per year, based on 220 standard washing cycles for cotton programmes at 60°C and 40°C at full and partial load, and the consumption of the low-power modes. Actual energy consumption will depend on how the appliance is used.';
 - (g) the energy consumption ($E_{t,60}$, $E_{t,60\frac{1}{2}}$, $E_{t,40\frac{1}{2}}$) of the standard 60°C cotton programme at full load and partial load and of the standard 40°C cotton programme at partial load;
 - (h) weighted power consumption of the off-mode and of the left-on mode;
 - (i) weighted annual water consumption (AW_C) in litres per year, rounded up to the nearest integer; it shall be described as: 'Water consumption "X" litres per year, based on 220 standard washing cycles for cotton programmes at 60°C and 40°C at full and partial load. Actual water consumption will depend on how the appliance is used.';
 - (j) spin-drying efficiency class determined in accordance with point 2 of Annex VI, expressed as 'spin-drying efficiency class 'X' on a scale from G (least efficient) to A (most efficient)'; this may be expressed by other means provided it is clear that the scale is from G (least efficient) to A (most efficient);
 - (k) maximum spin speed attained for the standard 60 °C cotton programme at full load or the standard 40°C cotton programme at partial load, whichever is the lower, and remaining moisture content attained for the standard 60°C cotton

¹⁸ OJ L 27, 30.1.2010, p. 1–19.

programme at full load or the standard 40°C cotton programme at partial load, whichever is the greater;

- (l) indication that the “standard 60°C cotton programme” and the "standard 40°C cotton programme" are the standard washing programmes to which the information in the label and the fiche relates, that these programmes are suitable to clean normally soiled cotton laundry and that they are the most efficient programmes in terms of combined energy and water consumption;
 - (m) the programme time of the “standard 60°C cotton programme” at full and partial load and of the "standard 40°C cotton programme" at partial load in minutes and rounded to the nearest minute;
 - (n) the duration of the left-on mode (T_l) if the household washing machine is equipped with a power management system;
 - (o) airborne acoustical noise emissions expressed in dB(A) re 1 pW and rounded to the nearest integer during the washing and spinning phases for the standard 60°C cotton programme at full load
 - (p) if the household washing machine is intended to be built-in, an indication to this effect.
2. One fiche may cover a number of household washing machine 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 III
Technical documentation

1. The technical documentation referred to in Article 3(1)(c) shall include:
 - (a) the name and address of the supplier;
 - (b) a general description of the washing machine model, sufficient for it to be unequivocally and easily identified;
 - (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) technical parameters for measurements as follows:
 - (i) energy consumption,
 - (ii) programme time,
 - (iii) water consumption,
 - (iv) power consumption in ‘off-mode’,
 - (v) power consumption in ‘left-on mode’,
 - (vi) ‘left-on mode’ duration,
 - (vii) remaining moisture content,
 - (viii) airborne acoustical noise emissions,
 - (ix) maximum spin speed;
 - (g) the results of calculations performed in accordance with Annex VII.
2. Where the information included in the technical documentation file for a particular household washing machine model has been obtained by calculation on the basis of design, or extrapolation from other equivalent household washing machines or both, the documentation shall include details of such calculations or extrapolations, or both, and of tests undertaken by suppliers to verify the accuracy of the calculations undertaken. The information shall also include a list of all other equivalent household washing machine models where the information was obtained on the same basis.

ANNEX IV

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

1. The information referred to in Article 4(b) shall be provided in the following order:
 - (a) the rated capacity in kg of cotton, for the standard 60 °C cotton programme at full load or the standard 40 °C cotton programme at full load, whichever is the lower ;
 - (b) the energy efficiency class as defined in point 1 of Annex VI;
 - (c) the weighted annual energy consumption in kWh per year, rounded up to the nearest integer and calculated in accordance with point 1(c) of Annex VII;
 - (d) the weighted annual water consumption in litres per year, rounded up to the nearest integer and calculated in accordance with point 2(a) of Annex VII;
 - (e) the spin-drying efficiency class in accordance with point 2 of Annex VI;
 - (f) the maximum spin speed attained for the standard 60 °C cotton programme at full load or the standard 40°C cotton programme at partial load, whichever is the lower, and the remaining moisture content attained for the standard 60 °C cotton programme at full load or the standard 40°C cotton programme at partial load, whichever is the greater;
 - (g) airborne acoustical noise emissions during the washing and spinning phases, for the standard 60°C cotton programme at full load, expressed in dB(A) re 1 pW and rounded to the nearest integer;
 - (h) if the household washing machine is produced in order to be built-in, an indication to this effect.
2. Where other information contained in the product fiche is also provided, it shall be in the form and order specified in Annex II.
3. The size and font, in which all the information referred in this Annex is printed or shown, shall be legible.

ANNEX V
Verification procedure for market surveillance purposes

For the purposes of checking conformity with the requirements laid down in Articles 3 and 4, Member State authorities shall test a single household washing machine. If the measured parameters do not meet the values declared by the supplier within the ranges set out in Table 1, the measurements shall be carried out on three more household washing machines. The arithmetic mean of the measured values of these three household washing machines shall meet the values declared by the supplier within the range defined in Table 1, except for the energy consumption, where the measured value shall not be greater than the rated value of E_t by more than 6%.

Otherwise, the model and all other equivalent household washing machines models shall be considered not to comply with the requirements laid down in Articles 3 and 4.

Member State authorities shall use reliable, accurate and reproducible measurement procedures, which take into account the generally recognised state-of-the-art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union.

Table 1

Measured parameter	Verification tolerances
Annual energy consumption	The measured value shall not be greater than the rated value* of AE_C by more than 10 %.
Energy consumption	The measured value shall not be greater than the rated value of E_t by more than 10%.
Programme time	The measured value shall not be longer than the rated values T_t by more than 10%.
Water consumption	The measured value shall not be greater than the rated value of W_t by more than 10%.
Remaining moisture content	The measured value shall not be greater than the rated value of D by more than 10%.
Spin speed	The measured value shall not be less than the rated value by more than 10%.
Power consumption in off-mode and left-on mode	The measured value of power consumption P_o and P_l of more than 1.00 W shall not be greater than the rated value by more than 10%. The measured value of power consumption P_o and P_l of less than or equal to 1.00 W shall not be greater than the rated value by more than 0.10 W.
Duration of the left-on mode	The measured value shall not be longer than the rated value of T_l by more than 10%.
Airborne acoustical noise emissions	The measured value shall meet the rated value.

* 'rated value' means a value that is declared by the supplier.

ANNEX VI
Energy efficiency classes and spin-drying efficiency classes

1. ENERGY EFFICIENCY CLASSES

The energy efficiency class of a household washing machine shall be determined on the basis of its Energy Efficiency Index (*EEI*) as set out in Table 1.

The Energy Efficiency Index (*EEI*) of a household washing machine shall be determined in accordance with point 1 of Annex VII.

Table 1: Energy efficiency classes

Energy efficiency class	Energy Efficiency Index
A+++ (most efficient)	$EEI < 46$
A++	$46 \leq EEI < 52$
A+	$52 \leq EEI < 59$
A	$59 \leq EEI < 68$
B	$68 \leq EEI < 77$
C	$77 \leq EEI < 87$
D (least efficient)	$87 \leq EEI$

2. SPIN-DRYING EFFICIENCY CLASSES

The spin-drying efficiency class of a household washing machine shall be determined on the basis of the remaining moisture content (*D*) as set out in Table 2.

The remaining moisture content (*D*) of a household washing machine shall be determined in accordance with point 3 of Annex VII.

Table 2: Spin-drying efficiency classes

Spin-drying efficiency class	Remaining moisture content (%)
A (most efficient)	$D < 45$
B	$45 \leq D < 54$
C	$54 \leq D < 63$
D	$63 \leq D < 72$
E	$72 \leq D < 81$
F	$81 \leq D < 90$
G (least efficient)	$90 \leq D$

ANNEX VII
Method for calculating the Energy Efficiency Index, annual water consumption and remaining moisture content

3. CALCULATION OF THE ENERGY EFFICIENCY INDEX

For the calculation of the Energy Efficiency Index (*EEI*) of a household washing machine model, the weighted annual energy consumption of a household washing machine for the standard 60°C cotton programme at full and partial load and for the standard 40°C cotton programme at partial load is compared to its standard annual energy consumption.

- (a) The Energy Efficiency Index (*EEI*) is calculated as follows and rounded to one decimal place:

$$EEI = \frac{AE_C}{SAE_C} \times 100$$

where:

AE_C = annual energy consumption of the household washing machine;

SAE_C = standard annual energy consumption of the household washing machine.

- (b) The standard annual energy consumption (*SAE_C*) is calculated in kWh/year as follows and rounded to two decimal places:

$$SAE_C = 47,0 \times c + 51,7$$

where:

c = rated capacity of the household washing machine for the standard 60°C cotton programme at full load or the standard 40°C cotton programme at full load, whichever is the lower.

- (c) The weighted annual energy consumption (*AE_C*) is calculated in kWh/year as follows and is rounded to two decimal places:

(i)

$$AE_C = E_t \times 220 + \frac{\left[P_o \times \frac{525600 - (T_t \times 220)}{2} + P_l \times \frac{525600 - (T_t \times 220)}{2} \right]}{60 \times 1000}$$

where:

E_t = weighted energy consumption;

P_o = weighted power in ‘off-mode’;

P_l = weighted power in the ‘left-on mode’;

T_l = weighted programme time;

220 = total number of standard washing cycles per year.

- (ii) Where the household washing machine is equipped with a power management system, with the household washing machine reverting automatically to ‘off-mode’ after the end of the programme, the weighted annual energy consumption (AE_C) is calculated taking into consideration the effective duration of ‘left-on mode’, according to the following formula:

$$AE_C = E_t \times 220 + \frac{\{(P_l \times T_l \times 220) + P_o \times [525600 - (T_l \times 220) - (T_l \times 220)]\}}{60 \times 1000}$$

where:

T_l = time in ‘left-on mode’.

- (d) The weighted energy consumption (E_t) is calculated in kWh as follows and rounded to three decimal places:

$$E_t = [3 \times E_{t,60} + 2 \times E_{t,60/2} + 2 \times E_{t,40/2}] / 7$$

where:

$E_{t,60}$ = energy consumption of the standard 60°C cotton programme at full load;

$E_{t,60/2}$ = energy consumption of the standard 60°C cotton programme at partial load;

$E_{t,40/2}$ = energy consumption of the standard 40°C cotton programme at partial load.

- (e) The weighted power in ‘off-mode’ (P_o) is calculated in W as follows and rounded to two decimal places:

$$P_o = (3 \times P_{o,60} + 2 \times P_{o,60/2} + 2 \times P_{o,40/2}) / 7$$

where:

$P_{o,60}$ = power in ‘off-mode’ of the standard 60°C cotton programme at full load;

$P_{o,60/2}$ = power in ‘off-mode’ of the standard 60°C cotton programme at partial load;

$P_{o,40/2}$ = power in ‘off-mode’ of the standard 40°C cotton programme at partial load.

- (f) The weighted power in the ‘left-on mode’ (P_l) is calculated in W as follows and rounded to two decimal places:

$$P_l = (3 \times P_{l,60} + 2 \times P_{l,60\frac{1}{2}} + 2 \times P_{l,40\frac{1}{2}})/7$$

where:

$P_{l,60}$ = power in ‘left-on mode’ of the standard 60°C cotton programme at full load;

$P_{l,60\frac{1}{2}}$ = power in ‘left-on mode’ of the standard 60°C cotton programme at partial load;

$P_{l,40\frac{1}{2}}$ = power in ‘left-on mode’ of the standard 40°C cotton programme at partial load.

- (g) The weighted programme time (T_t) is calculated in minutes as follows and rounded to the nearest minute:

$$T_t = (3 \times T_{t,60} + 2 \times T_{t,60\frac{1}{2}} + 2 \times T_{t,40\frac{1}{2}})/7$$

Where:

$T_{t,60}$ = programme time of the standard 60°C cotton programme at full load;

$T_{t,60\frac{1}{2}}$ = programme time of the standard 60°C cotton programme at partial load;

$T_{t,40\frac{1}{2}}$ = programme time of the standard 40°C cotton programme at partial load.

- (h) The weighted time in ‘left-on mode’ (T_l) is calculated in minutes as follows and rounded to the nearest minute:

$$T_l = (3 \times T_{l,60} + 2 \times T_{l,60\frac{1}{2}} + 2 \times T_{l,40\frac{1}{2}})/7$$

where:

$T_{l,60}$ = time in ‘left-on mode’ of the standard 60°C cotton programme at full load;

$T_{l,60\frac{1}{2}}$ = time in ‘left-on mode’ of the standard 60°C cotton programme at partial load;

$T_{l,40\frac{1}{2}}$ = time in ‘left-on mode’ of the standard 40°C cotton programme at partial load.

4. CALCULATION OF THE WEIGHTED ANNUAL WATER CONSUMPTION

- (a) The weighted annual water consumption (AW_c) of a household washing machine is calculated in litres as follows and rounded up to the integer:

$$AW_c = W_t \times 220$$

where:

W_t = weighted water consumption;

220 = total number of standard washing cycles per year.

- (b) The weighted water consumption (W_t) is calculated in litres as follows and rounded up to the integer

$$W_t = (3 \times W_{t,60} + 2 \times W_{t,60\frac{1}{2}} + 2 \times W_{t,40\frac{1}{2}}) / 7$$

where:

$W_{t,60}$ = water consumption of the standard 60°C cotton programme at full load;

$W_{t,60\frac{1}{2}}$ = water consumption of the standard 60°C cotton programme at partial load;

$W_{t,40\frac{1}{2}}$ = water consumption of the standard 40°C cotton programme at partial load.

5. CALCULATION OF THE WEIGHTED REMAINING MOISTURE CONTENT

The weighted remaining moisture content (D) of a household washing machine is calculated in percentage as follows and rounded to the nearest whole percent:

$$D = (3 \times D_{60} + 2 \times D_{60\frac{1}{2}} + 2 \times D_{40\frac{1}{2}}) / 7$$

where:

D_{60} is the residual moisture content for the standard 60°C cotton programme at full load, in percentage and rounded to the nearest whole per cent;

$D_{60\frac{1}{2}}$ is the residual moisture content for the standard 60°C cotton programme at partial load, in percentage and rounded to the nearest whole per cent;

$D_{40\frac{1}{2}}$ is the residual moisture content for the standard 40°C cotton programme at partial load, in percentage and rounded to the nearest whole per cent.