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SCHEDULES
ENERGY EFFICIENCY STANDARDS AND LABELLING (HOUSEHOLD REFRIGERATING APPLIANCES) REGULATIONS, 2009

In exercise of the power conferred on the Minister responsible for Energy by section 56 (1) (a)(i) of the Energy Commission Act, 1997 (Act 541) these Regulations are made this ………………………………..day of ………………………………….2009.

Purpose and application

Purpose of Regulations

1. The purpose of these Regulations is to provide for

   (a) the enforcement of minimum energy efficiency for household refrigerating appliances prescribed in these Regulations and measured in accordance with the Ghana Standard the GS IEC 62552: 2007; and

   (b) the labelling of household refrigerating appliances.

Application of Regulations

2. (1) These Regulations apply to electric mains operated appliances manufactured in this country or imported for use in this country.

   (2) These Regulations do not apply to

      (a) the rating plate or its equivalent affixed for safety purposes to an appliance; or

      (b) an appliance which is designed to use an energy source other than electricity; or

      (c) an appliance manufactured in this country for export.

   (3) For the purpose of this regulation, appliance means a refrigerator, a frozen food storage cabinet, a food freezer or their combination.
Duties and requirements

Duty to comply with requirements

3. A person who manufactures, or imports an appliance for use in this country shall ensure that the appliance complies with

(a) the minimum energy efficiency star rating prescribed in Table 1 of the first schedule and Table 4 of the fifth schedule and measured in accordance with the Ghana Standard GS IEC 62552: 2007

(b) the labelling requirements prescribed in the Second Schedule, and

(c) an ST or T Climate Class requirement as specified in the Standards.

Labelling requirement and information

4. (1) A person shall not import, store, offer for sale, sell, distribute, or otherwise dispose of an appliance unless the appliance bears a label which indicates the minimum energy efficiency standards.

(2) The label on an appliance shall

(a) be in the form prescribed in the Second Schedule, and

(b) contain the information specified in the Second Schedule.

(3) The label shall be

(a) in the English language, and

(b) affixed conspicuously on both the appliance and package that contains the appliance.

(4) The label shall

(a) be in “black and white” with the print and background in colours which preserve the legibility of the label where the printing is done on the package; and

(b) be in full colour if the label is affixed on the package.

(5) Subject to sub-regulation (6), where the label is affixed on the appliance it shall be in colour, printed on a waterproof material and affixed conspicuously onto the
appliance so that it remains clearly visible and is not obscured whenever the appliance is displayed.

(6) The label on the appliance shall be affixed on the door in the case of an appliance which is designed to open from the front and on the lid in the case of an appliance which is designed to open from the top.

(7) A person shall not remove the label on an appliance before the first retail purchase of the appliance.

(8) For the purposes of this regulation, “first retail purchase” means purchase of an appliance by the first end user.

**Technical documentation**

5. (1) A person shall not import, store, offer for sale, sell, distribute or otherwise dispose of an appliance unless that person has made available sufficient technical documentation to enable the accuracy of the information contained in an information sheet or on a label to be assessed.

(2) The technical documentation referred to in sub-regulation (1) shall include

(a) the name and address of the supplier;

(b) description of the appliance, for its easy identification;

(c) relevant drawings on the main design features of the model and parameters of the appliance which affects its energy consumption;

(d) reports of relevant measurement tests carried out under the Standards;

(e) details of calculations, extrapolations and tests undertaken to verify the accuracy of calculations undertaken;

(f) details of the mathematical model used to calculate the performance and of the measurements taken to verify the model where the information relating to a particular model combination has been obtained by calculation on the basis of design, or extrapolation from other combinations or both; and

(g) operating instructions.

(3) A supplier shall make the technical documentation available for inspection by an enforcement authority for a period of not less than three years after the last appliance of
the model in use was manufactured.

Duties of supplier in respect of information sheet

6. (1) A supplier of an appliance shall provide an information sheet which shall
   (a) be in the English language,
   (b) contain the information provided in the Third Schedule, and
   (c) be in the form prescribed in the Third Schedule.

   (2) The category of the appliance shall be determined in accordance with the
categories specified in the Fourth Schedule.

   (3) The energy efficiency star rating of an appliance shall be determined in
accordance with the ratings provided in the First Schedule.

   (4) Where the supplier provides a product brochure with an appliance, the
brochure must contain the information sheet.

   (5) Where a supplier provides an appliance without a product brochure, the
supplier must provide the information sheet with any other relevant literature.

Access to information on technical documentation and information sheet

7. (1) The information required under regulations 4, 5 and 6 shall be obtained
in accordance with the test procedures specified in the Standards.

   (2) Information obtained in a manner other than in accordance with sub-
regulation (1) shall for the purposes of these Regulations be deemed not to be valid.

Duty of supplier to ensure accuracy of information

8. (1) A supplier shall ensure that the information in an information sheet or on a
label in respect of an appliance that that supplier supplies, is accurate.

   (2) The duty required of a supplier under sub-regulation (1) does not derogate
from any other right of action which a person may have by law against the supplier or any
other person with respect to the inaccuracy of information in an information sheet or on a
label.

Information
Consent to publication of information

9. The supplier shall be deemed to have consented to the publication of the information given in an information sheet or on a label of the appliance which that supplier deals in.

Information in respect of mail order and other distance selling

10. (1) Where a person offers an appliance for sale to a consumer in this country through a particular medium of communication, that person shall ensure that the communication

   (a) is in the English language,

   (b) includes the information specified in the Fifth Schedule, and

   (c) describes the appliance in accordance with the energy efficiency star ratings provided in the First Schedule and the categories of the Fourth Schedule.

   (2) Where other information is provided as a requirement in an information sheet, it shall be incorporated in the information required under sub-regulation (1) (b) and (c) in the form provided and in the sequence indicated in the Third Schedule.

Misleading information

11. (1) A person shall not display a label, mark, symbol or inscription which relates to the energy consumption of an appliance if the display is likely to be deceptive, misleading or false.

   (2) Sub-regulation (1) shall not apply to a label, mark, symbol or inscription displayed under an environmental or endorsement labelling scheme.

Powers of enforcement

Power of enforcement authority to require technical documentation

12. Where an enforcement authority has reason to suspect that the information given in an information sheet or on a label is incorrect, the authority may by notice served on the supplier or importer of the appliance, require the supplier or importer to furnish the authority with the technical documentation referred to in regulation 5 within the time period stipulated in the notice.

Power of enforcement authority to inspect appliance
13. An enforcement authority may at any reasonable time
   (a) enter any premises or place if that authority has reason to believe that an appliance is being manufactured, offered for sale or being disposed of, and
   (b) examine an appliance
      (i) displayed for sale,
      (ii) at a point of import, or
      (iii) at a warehouse.

Power to seize and detain appliance and document

14. (1) Subject to these Regulations, where an enforcement authority has reasonable cause to suspect that an offence has been or is being committed, that authority may
   (a) at any reasonable time enter premises other than a dwelling place, and inspect any appliance,
   (b) require a person engaged in a business or employed in connection with a business to produce a record in respect of an appliance,
   (c) seize an appliance, that is not properly labelled or that is labelled in a deceptive or misleading manner,
   (d) seize and detain an appliance to enable a test to be carried out,
   (e) seize and retain a record to be used as evidence in proceedings in respect of an offence under these Regulations,
   (f) cause a container to be opened for the purpose of inspection, and
   (g) break open a container where it was not practicable to do so under paragraph (f).

   (2) For the purposes of sub-regulation (1) (b) and (e) the enforcement authority may require information stored electronically to be made available to the authority in printed form.

Powers of enforcement authority to test appliance
15  (1) An enforcement authority may purchase and test an appliance to ascertain whether a provision of these Regulations has been contravened.

(2) An enforcement authority shall have the power to obtain, remove and test an appliance to ascertain whether a provision of these Regulations has been contravened.

(3) Where an enforcement authority is requested by any person to test an appliance and it is practicable for the authority to comply with the request, the authority shall seize detain and test the appliance.

(4) The test conducted in respect of an appliance purchased or obtained under sub-regulation (1), seized and tested under subregulations (1) and (2) respectively or seized and detained under regulation 14, shall be carried out in accordance with the test procedures specified in the Standards.

Order to access information or obtain appliance

16. (1) An enforcement authority may apply to the court within which jurisdiction that authority exercises powers for an order to enter premises if the authority has reasonable grounds to believe that an appliance or document which the authority has power to inspect or seize, can assist in the disclosure of evidence of the commission of an offence under these Regulations where

(a) the authority is refused entry to the premises, or

(b) a notification to enter premises would defeat the object of the entry, or

(c) the premises are unoccupied or the occupier is temporarily absent.

(2) The court may give an order to enter the premises, which shall continue in force for a period of one month.

(3) An enforcement authority that exercises a power of seizure and detention shall as soon as practicable give to the person, against whom the power has been exercised, a written notice which shall

(a) state precisely what has been seized and detained; and

b) explain where, within what period and on what grounds a petition against the detention may be brought under regulation 18.

Procedure for re-labelling seized appliance
17. (1) Subject to these Regulations, where an enforcement authority seizes an appliance from a supplier under regulation 14 (1) (d), the enforcement authority shall within two days of the detention of the appliance give notice to the supplier to properly label the appliance if the minimum energy efficiency standards have been complied with.

(2) The notice shall state that the appliance must be re-labelled in the required manner or exported out of this country within twenty-eight days.

(3) Where a supplier is required under sub-regulation (1), to re-label an appliance, the appliance shall be re-labelled under the supervision of an officer authorised by the Energy Commission or the Ghana Standards Board for the purpose.

(4) Where a supplier fails to re-label the appliance, it shall be destroyed in accordance with regulation 21 (2).

*Petition and compensation*

Petition against detention or seizure

18. (1) Subject to these Regulations, a person whose appliance is detained or seized, may within seven days after the detention or seizure, petition the Commission for the release of the seized, or detained appliance.

(2) The Commission shall within seven days after receipt of the petition, either confirm the seizure or order the seized appliance to be released to the petitioner on a specific day.

Compensation for loss of appliance or record seized

19. (1) Where an enforcement authority exercises power under these Regulations to seize and detain any appliance or record, the enforcement authority shall be liable to pay compensation to any person who has an interest in the appliance or record for any loss or damage caused by the exercise of the power if

(a) there has been no contravention of these Regulations in relation to the appliance or record; and

(b) the exercise of the power is not attributable to the neglect or default by that person.

(2) A dispute as to the right to or the amount of compensation payable shall be determined by arbitration at the first instance.

*Restriction, forfeiture and disposal of appliances*
Restrictions on disclosure of information

20. (1) A person shall not disclose information

(a) obtained by that person for the purpose of its communication to another person to ensure compliance with a requirement imposed by these Regulations; or

(b) which consists of a secret manufacturing process or trade secret and that was obtained by that person in the course of the exercise of a power or duty conferred on the person by these Regulations.

(2) Despite subregulation (1), a person may disclose information if the information is publicised information or the disclosure is made

(a) for the purpose of the facilitation of the exercise of powers by an enforcement authority under these Regulations or any other enactment,

(b) in connection with the investigation of a criminal offence or,

(c) for the purposes of a civil or criminal proceeding.

Forfeiture and destruction of seized appliance

21. (1) An appliance which does not conform to these Regulations shall be liable for forfeiture.

(2) The Minister shall acting on the recommendation of the Commission given in collaboration with the Ghana Standards Board, destroy or re-export any forfeited appliance that is liable for forfeiture.

Recovery of expenses by enforcement authority

22. (1) Where an enforcement authority

(a) seizes, detains, tests, supervises re-labelling or destroys an appliance which does not meet the minimum energy efficiency requirements of these Regulations, or

(b) the Energy Commission destroys an appliance in accordance with these Regulations

the Commission shall surcharge the supplier with the attendant costs.
(2) Despite subregulation (1), where a court convicts a person of an offence in respect of a contravention of any provision of these Regulations, the court may in addition to any order it makes as to costs and expenses, order the person convicted, to reimburse an enforcement authority for any expenditure which has been or may be incurred by the authority in connection with the seizure or detention by or on behalf of the enforcement authority.

Miscellaneous provisions

Offences and penalties

23. A person who

(a) imports an appliance that does not meet a requirement in respect of the minimum energy efficiency standard;

(b) fails to comply with a labelling or re-labelling requirement;

(c) removes the label on an appliance contrary to regulation 4 (7);

(d) fails to provide technical documentation contrary to regulation 5;

(e) fails to provide an information sheet contrary to regulation 6;

(f) provides inaccurate information contrary to regulation 8;

(g) fails to comply with the communication requirements contrary to regulation 10;

(h) provides misleading information contrary to regulation 11;

(i) obstructs or interferes with an enforcement authority in the exercise of that authority’s powers

commits an offence and is liable on summary conviction to a fine not exceeding two hundred and fifty penalty units or imprisonment for a term not exceeding twelve months or to both.

Offence by corporate bodies

24. (1) Where an offence under these Regulations is committed by a body corporate or by a member of a partnership or a firm, every director, or officer of the body corporate or a member of the partnership or any other person concerned with the management of the firm shall be deemed to have committed that offence and is liable on summary conviction to a fine of not more than one thousand penalty units for the offence
and is in addition liable to the payment of compensation for the damage resulting from the breach to the satisfaction of the court.

(2) A person shall not be convicted of an offence by virtue of subsection (1) if it is proved that

(a) due diligence was exercised to secure compliance with the provisions of these Regulations, and

(b) the offence was committed without the knowledge, consent or connivance of that person.

Aiding and abetting

25. An enforcement authority that

(a) assists a person to contravene these Regulations; or

(b) discloses information contrary to regulation 20,

commits an offence and is liable on summary conviction to a fine not exceeding two hundred and fifty penalty units or imprisonment for a term not exceeding twelve months or to both.

Transitional provisions

26. Except for a used appliance, a person who has placed an appliance on the market before the commencement of these Regulations shall within six months after the commencement of these Regulations, label the appliance in accordance with these Regulations if that appliance meets the energy efficiency requirements of these Regulations.

Interpretation

27. In these Regulations unless the context otherwise requires,

“Act” means the Energy Commission Act, 1997 (Act 541);

“appliance” means a household refrigerating appliance;

“Commission” means the Energy Commission;

"communication" means the manner in which an appliance is offered for sale, whereby the potential customer cannot be expected to see the appliance displayed
such as a written offer, a mail order catalogue, advertisement on the internet or other electronic media;

“court” includes a lower court;

"dealer" means a retailer or other person who offers for sale, displays or sells an appliance to an end-user;

“dwelling place” means place of residence;

“endorsement labelling scheme” includes a voluntary labelling scheme that guarantees appliance performance standards, that is equal to or exceeds the minimum threshold established by a recognised advisory body;

“end user” means the final user of an appliance;

“energy efficiency rating” means the ratio of the food cooling service time to the effective power input for a set of rating conditions specified in the Standards;

"enforcement authority" means

(a) officers of Customs Excise and Preventive Service,

(b) Inspectors of the Energy Commission; and

(c) officers of the Ghana Standards Board; and

(d) any other authorized officer designated by the Customs Excise and Preventive Service, the Energy Commission or the Ghana Standards Board;

“environmental labelling scheme” means a voluntary labelling scheme that provides detailed environmental information about the performance characteristics of an appliance;

“fresh food compartment” means a compartment intended for the storage of unfrozen food, which is divisible into sub-compartments;

“freezer “means a refrigerating appliance that has one or more compartments suitable for freezing foodstuffs from an ambient temperature to a temperature of minus 18° C and which is also suitable for the storage of frozen food under three star storage conditions,

“GS” means Ghana Standards;

“household refrigerating appliance” means a factory assembled insulated cabinet
with one or more compartments and a suitable volume and equipment for household use, cooled by natural convection or a frost-free system whereby the cooling is effected by one or more energy-consuming means;

“importer” means a person who places a refrigeration appliance from a foreign country on the Ghanaian market and supplies that appliance for the first time;

"information sheet" means a standard table of information related to an appliance;

“label” means a label of a household refrigerating appliance which contains information on its consumption of energy;
“Minister” means Minister responsible for Energy;

“place on the market” includes importation, wholesale and distribution and the retail distribution free of charge of an appliance;

“product brochure” includes a pamphlet or booklet that contains introductory information about a product;

“rating plate” means a name plate that indicates the measurable performance capability of an appliance;

"record" includes a book, document, label, mark, symbol inscription and a record in non-documentary form;

“refrigerator” means a refrigerating appliance intended for the preservation of food with, compartment suitable for the storage of fresh food;

“refrigerator-freezer” means an appliance that has

(a) one compartment suitable for the storage of fresh food,

(b) a freezer compartment suitable for the freezing of food and the storage of frozen food under three star conditions;

"sale" includes a hire-purchase sale;

“ Standards" means GS IEC 62552:2007;

"supplier" includes a manufacturer or the authorised representative of a manufacturer resident in Ghana, and an importer or the person who introduces an appliance on the Ghanaian market;

“supply” includes an offer to supply, contract to supply and advertisement for supply
of an appliance but excludes the exhibition at a trade fair of an appliance that is prohibited by these Regulations;

“ST Climate Class” means the sub-tropical climate classification of an appliance; and

“T Climate Class” means the tropical climate classification of an appliance.

Commencement

28. Regulation 23 shall commence after the commencement of these Regulations.
ENERGY EFFICIENCY STAR RATING
(Regulations 3 (a), 6(3), 10(1)(c)

The energy efficiency level of a refrigerating appliance defines the maximum allowable annual energy use for that appliance in units of kWh where energy consumption is measured as specified in the standards.

PART 1

Definition of Energy Efficiency Star Rating for 4 Star and 5 Star appliances
1. An appliance shall be classified as 4 Star or 5 Star where the energy efficiency index (I) is within the ranges specified in Table 1.

<table>
<thead>
<tr>
<th>&quot;Energy efficiency Star Rating&quot;</th>
<th>Energy efficiency index (I)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Climatic Class ST</td>
</tr>
<tr>
<td>5 – Star</td>
<td>I &lt;30</td>
</tr>
<tr>
<td>4-Star</td>
<td>30≤I&lt;42</td>
</tr>
<tr>
<td>3-Star to 1-Star (see below)</td>
<td>42&lt;1</td>
</tr>
</tbody>
</table>

2. The energy efficiency index (I), shall be calculated using the following formula:

\[ I = \frac{AC}{SC} \times 100 \]

Where:
- \( AC \) = the annual energy consumption of the appliance, measured in accordance with the standards;
- \( SC \) = the standard annual energy consumption of the appliance

"SC" is calculated as:

\[ SC = M \times \sum_{\text{compartments}} \left( Vc \times \frac{(25 - Tc)}{20} \times FF \times CC \times BI \right) + N + CH \]

Where,

"Vc" means the net volume (in litres) of the compartment (in accordance with the standards);

"Tc" is the design temperature (in °C) of the compartment;

The values of M and N are given in Table 2; and

The values of FF, CC, BI and CH are given in Table 3.

Table 2

<table>
<thead>
<tr>
<th>Type of appliance</th>
<th>Temperature of coldest compartment</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Larder Fridge</td>
<td>&gt;-6°C</td>
<td>0.233</td>
<td>245</td>
</tr>
</tbody>
</table>
2. Refrigerator/chillers       
3. Refrigerator no star       
4. Refrigerator*              
5. Refrigerator**             
6. Refrigerator**/            
7. Fridge/freezer *(***)      
8. Upright freezer            
9. Chest freezer              
10. Multi-door or other appliance

<table>
<thead>
<tr>
<th>Correction factor</th>
<th>Value</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF (frost free)</td>
<td>1.2</td>
<td>For &quot;frost free&quot; (ventilated) frozen food compartments; Otherwise</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CC (climate class)</td>
<td>1.2</td>
<td>For &quot;tropical&quot; appliances; For &quot;subtropical&quot; appliances;</td>
</tr>
<tr>
<td></td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>BI (built-in)</td>
<td>1.2</td>
<td>For built-in appliances (^1) of under 58cm in width; Otherwise</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CH (chill compartment)</td>
<td>50 kWh/y</td>
<td>For appliances with a chill compartment of at least 15 litres; Otherwise</td>
</tr>
</tbody>
</table>

\(^1\) An appliance is "built-in" only if it is designed exclusively for installation within a kitchen cavity with a need of furniture finishings, and tested as such.

\(^1\) For these appliances, the temperature and cooling star rating of the compartment with the lowest temperature will determine the values of M and N. Appliances with \(-18^\circ C\) \(*(***)\) compartments shall be considered as fridge-freezers \(*(***)\).
(3) If an appliance is not 4-Star or 5-Star, it shall be classified in accordance with Part 2.

**PART 2**

**Definition of Energy Efficiency Star Rating for 3-Star to 1-Star appliances**

2. The energy efficiency Star Rating of a 3-Star to 1-Star appliance shall be classified in accordance with Table 4.

<table>
<thead>
<tr>
<th>&quot;Energy efficiency Star Rating&quot;</th>
<th>Energy efficiency index (I)</th>
<th>Climatic Class ST</th>
<th>Climatic Class T</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – Star</td>
<td>42 ≤I&lt;55</td>
<td>55≤I&lt;75</td>
<td></td>
</tr>
<tr>
<td>2-Star</td>
<td>55≤I&lt;75</td>
<td>75≤I&lt;90</td>
<td></td>
</tr>
<tr>
<td>1-Star</td>
<td>75≤I&lt;90</td>
<td>90≤I&lt;100</td>
<td></td>
</tr>
</tbody>
</table>

Where,

"energy efficiency index (I)" (expressed as a percentage) = annual energy consumption of appliance in accordance with the standards (AC) / standard annual energy consumption of appliance (SC);

\[ I = \frac{AC}{SC} \times 100 \]

"standard annual energy consumption of appliance (SC)" (expressed in kWh/year) = \( M \times V_{adj} + N \);

\[ SC = M \times V_{adj} + N \]

"adjusted net volume" (Vadj) (expressed in litres) = net volume of fresh food compartment (Vfresh) + [Omega] (Ω) \times net volume of frozen food compartment (Vfrozen);

\[ V_{adj} = V_{fresh} + \Omega \times V_{frozen} \]

The values of M, N and Ω are taken from Table 5.

<table>
<thead>
<tr>
<th>Category of Appliance</th>
<th>Ω</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Larder fridge</td>
<td>-</td>
<td>0.233</td>
<td>245</td>
</tr>
<tr>
<td>2. Refrigerator/chiller</td>
<td>0.75(1)</td>
<td>0.233</td>
<td>245</td>
</tr>
<tr>
<td>3. Refrigerator no star</td>
<td>1.25</td>
<td>0.233</td>
<td>245</td>
</tr>
<tr>
<td>4. Refrigerator*</td>
<td>1.55</td>
<td>0.643</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Volume</td>
<td>Efficiency</td>
<td>Power Consumption</td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Refrigerator**</td>
<td>1.85</td>
<td>0.450</td>
<td>245</td>
</tr>
<tr>
<td>Refrigerator***</td>
<td>2.15</td>
<td>0.657</td>
<td>235</td>
</tr>
<tr>
<td>Fridge/freezer*(***)</td>
<td>(3)</td>
<td>0.777</td>
<td>303</td>
</tr>
<tr>
<td>Upright freezer</td>
<td>2.15(2)</td>
<td>0.472</td>
<td>286</td>
</tr>
<tr>
<td>Chest freezer</td>
<td>2.15(2)</td>
<td>0.446</td>
<td>181</td>
</tr>
<tr>
<td>Multi-door or other appliances</td>
<td>(3)</td>
<td>(4)</td>
<td>(4)</td>
</tr>
</tbody>
</table>

1. For refrigerator/chiller the adjusted volume = net volume of fresh food compartment + \( \Omega \times \) net volume of chiller (10°C) compartment (expressed in litres).

2. For 'no frost' appliances as defined in the standards, this index is increased by a provisional factor of 1.2 giving a value of 2.58 (this allows for the possible bias of the measurement method, which does not allow for the lack of ice build-up on "no frost" appliances. In practice, ice build-up will somewhat increase the consumption of "conventional" appliances).

3. Adjusted net volume (Vadj) shall be calculated by the formula:

\[
V_{adj} = \sum_{\text{all compartments}} \left( \frac{25 - T_c}{20} \right) V_c \times F_c
\]

Where,

"T_c" is design temperature (in °C) of each compartment;

"V_c" is the net volume (in litres) of each compartment; and

"F_c" is a factor which equals 1.2 for "no frost" compartments and 1 for other compartments.

4. For these appliances, the values of M and N shall be determined by the temperature and cooling star rating of the compartment with the lowest temperature, in accordance with Table 6.

### Table 6

<table>
<thead>
<tr>
<th>Temperature of coldest compartment</th>
<th>Equivalent category</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;-6°C</td>
<td>1 Larder fridge</td>
<td>0.233</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>2 Refrigerator/chiller</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 No-star refrigerator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ -6°C *</td>
<td>4 Refrigerator (*)</td>
<td>0.643</td>
<td>191</td>
</tr>
<tr>
<td>≤ -12°C **</td>
<td>5 Refrigerator (**)</td>
<td>0.450</td>
<td>245</td>
</tr>
<tr>
<td>Temperature</td>
<td>Equipment Description</td>
<td>Coefficient</td>
<td>Rate</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------</td>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td>≤-18°C ***</td>
<td>Refrigerator (***)</td>
<td>0.657</td>
<td>235</td>
</tr>
<tr>
<td>≤-18°C <em>(</em>**) with freezing capacity</td>
<td>Fridge/freezer <em>(</em>**)</td>
<td>0.777</td>
<td>303</td>
</tr>
</tbody>
</table>

SECOND SCHEDULE
THE LABEL

1. Label design
The label shall be in accordance with Figure 1 and shall include the information required by the notes.

![Energy Guide Label](image)

- **Refrigerator/Freezer Type:** zyx
- **Manufacturer:** Logo
- **Model No.:** abc123
- **Fresh Food Volume l:** XYZ
- **Frozen Food Volume l:** XYZ
- **Refrigerant:** Rxx
- **Climate Class:** ST
- **Cooling Star Rating:** ****

*Actual consumption will depend on how the appliance is used and where it is located. Further information is contained in product brochures. Removal of this label before first retail purchase is an offence under LI 1541.*

Figure 1

2. Notes to Figure 1
The following notes define the information to be included -

Note

I. Refrigerating appliance type as in the Fourth Schedule.

II. Supplier's name or trade mark.

III. Supplier's model identifier.

IV. Type of refrigerant

V. The energy efficiency star rating of an appliance shall be determined in accordance with the First Schedule (energy efficiency star rating).

VI. ST or T Climate Classification

VII. Energy consumption in accordance with the standards for ST or T Climatic Class refrigerating appliances only but expressed in kWh per year (i.e. per 24 hours x 365).

VIII. Sum of net storage volume of all compartments which do not merit a star rating (i.e. operating temperature > -6 degrees centigrade ("°C")).

IX. Sum of net storage volume of all frozen food storage compartments which merit a star rating (i.e. operating temperature ≤-6°C).

X. Cooling Star rating of frozen food storage compartment, in accordance with the standards. Where this compartment does not merit any stars, this position shall be left blank.

XI. Noise, where applicable.
3. Printing
(1) Figure 2 defines certain aspects of the label.

---

**Energy Consumption**

kWh/yr*
*(Based on standard test result for 24h)*

Energy Consumption: 360

Refrigerator/Freezer Type: zyx
Manufacturer: Logo
Model No.: abc123
Fresh Food Volume l: XYZ
Frozen Food Volume l: XYZ
Refrigerant: Rxx
Climate Class: ST
Cooling Star Rating: ****

*Actual consumption will depend on how the appliance is used and where it is located. Further information is contained in product brochures.*

Removal of this label before first retail purchase is an offence under LI 1541.
Figure 2

(2) The dimensions of the label shall be in accordance with the illustration in Figure 2 and shall be placed in front or on the lid of the regulated appliance.

(3) Colours are to be used on the label in accordance with the following -

- All text is in black or gold as illustrated.
- The background is gold.
- All Stars shall be in black.
- Border line shall be in black.
THIRD SCHEDULE
(Regulation 6(1)(b) and (c) and 10(2) )

THE INFORMATION SHEET

1. The information sheet shall contain the information specified below. The information may be given in the form of a table covering a number of appliances supplied by the same supplier, in which case it shall be given in the order specified, or given in the description of the appliance.

(1) Supplier's name or trade mark.

(2) Supplier's model identifier.

(3) Type of appliance as follows –

<table>
<thead>
<tr>
<th>Category</th>
<th>Description in information sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Larder fridge</td>
</tr>
<tr>
<td>2</td>
<td>Refrigerator/chiller</td>
</tr>
<tr>
<td>3</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>4</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>5</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>6</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>7</td>
<td>Fridge/freezer</td>
</tr>
<tr>
<td>8</td>
<td>Upright freezer</td>
</tr>
<tr>
<td>9</td>
<td>Chest freezer</td>
</tr>
<tr>
<td>10</td>
<td>The supplier may choose its description of the type of appliance</td>
</tr>
</tbody>
</table>

(4) The energy efficiency star rating of the model as defined in the First Schedule (energy efficiency star rating), expressed as "Energy Efficiency Star Rating… on a scale of 5-Star (most efficient) to 1-Star (least efficient)". Where this information is provided in a table this may be expressed by other means provided it is clear that the scale is from 5-Star (most efficient) to 1-Star (least efficient).
(5) Energy consumption in accordance with the standards but expressed in kWh per year (i.e. per 24 hours x 365), described as: "energy consumption XYZ kWh per year, based on standard test results for twenty-four hours. Actual energy consumption will depend on how the appliance is used and where it is located".

(6) Except for categories 2, 8, 9 and 10, the net storage volume of the fresh food storage compartment (5°C) in accordance with the standards.

(7) Except for categories 1, 2, 3 and 10, the net storage volume of the frozen food storage compartment, and of the chill compartment when available, in accordance with the standards.

(8) For categories 2 and 10, the net storage volume of each compartment in accordance with the standards.

(9) For category 3 appliances, the net storage volume of the "ice box".

(10) Cooling Star Rating of the frozen food storage compartment, if any, in accordance with the standards.

(11) The statement "no frost" may be included here when in accordance with the definitions given in the standards.

(12) "Power cut safe Z h" defined as "temperature rise time" in accordance with the standards.

(13) "Freezing capacity" in kg/24 hours in accordance with the standards.

(14) "Climate class" in accordance with the standards.

(15) "Noise", where applicable.

(16) If the model is produced in order to be built-in, this should be stated.

(17) The type of refrigerant in the refrigerating appliance should be stated.

2. Where an appliance contains compartments other than a single fresh food compartment and a single frozen food compartment, extra lines may be added in respect of information to be given pursuant to paragraph 1(6), (7), (8), (9), (10), (11), (12), (13), and (14) above to include the information in respect of these compartments. In this case the naming and order of listing of the compartments shall be consistent. Where the design temperature of a compartment does not conform to the star rating system, or the standard fresh food compartment temperature (5°C), this design temperature shall be given.
3. The information contained in the label may be given in the form of a copy of the label, either in colour or in black and white. In this case the further information given only in the information sheet must still be included.

FOURTH SCHEDULE
(Regulation 6(2) and 10(1) (c)

CATEGORIES OF APPLIANCE

The regulated appliances covered by these Regulations shall be divided into the following 'categories': -

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Household refrigerators, without low temperature compartments</td>
</tr>
<tr>
<td>2</td>
<td>Household refrigerator/chillers, with compartments at 5° and/or 10°</td>
</tr>
<tr>
<td>3</td>
<td>Household refrigerators, with no-star low temperature compartments</td>
</tr>
<tr>
<td>4</td>
<td>Household refrigerators, with low temperature compartments *</td>
</tr>
<tr>
<td>5</td>
<td>Household refrigerators, with low temperature compartments **</td>
</tr>
<tr>
<td>6</td>
<td>Household refrigerators, with low temperature compartments ***</td>
</tr>
<tr>
<td>7</td>
<td>Household refrigerator/freezers, with low temperature compartments *(**)</td>
</tr>
<tr>
<td>8</td>
<td>Household food freezers, upright</td>
</tr>
<tr>
<td>9</td>
<td>Household food freezers, chest</td>
</tr>
<tr>
<td>10</td>
<td>Household refrigerators and freezers with more than two doors, or other appliances not covered above</td>
</tr>
</tbody>
</table>
Mail order catalogues and other communication shall contain the following information, given in the order specified below -

(a) energy efficiency star rating of the model in accordance with paragraph (4) of the Third Schedule (energy efficiency star rating);

(b) energy consumption in accordance with paragraph (5) of the Third Schedule (energy consumption);

(c) net storage volume of the fresh food storage compartment (5°C) in accordance with paragraph (6) or, as the case may be, paragraph (8) of the Third Schedule (net storage volume);

(d) net storage volume of the frozen food storage compartment, and of the chill compartment when available, in accordance with paragraph 1(7) or, as the case may be, paragraph 1(8) or (9) of the Third Schedule (net storage volume);

(e) Cooling star rating in accordance with paragraph (10) of the Third Schedule;

(f) noise, where applicable;

(g) type of refrigerant in the refrigerating appliance.

2. The size and font, in which all the information referred to in paragraph 1 is printed, shall be legible.

MINISTER RESPONSIBLE FOR ENERGY