

SCHEDULES

SCHEDULE 13

Regulation 28

Ecodesign requirements for refrigerating appliances

Interpretation

1. In this Schedule and Schedules 14 and 15—

“2-star section” means part of a 3-star or 4-star compartment which—

- (a) does not have its own individual access door or lid; and
- (b) has a target temperature and storage conditions of -12 °C;

“airborne acoustical noise emission” means the sound power level of a refrigerating appliance, expressed in A-weighted decibel referred to 1 pico watt (dB(A) re 1 pW);

“ambient controlled anti-condensation heater” means an anti-condensation heater where the heating capacity depends on the ambient temperature or the ambient humidity, or both;

“annual energy consumption” (“AE”) means the average daily energy consumption multiplied by 365 (days per year), expressed in kilowatt hours per year (kWh/a), as calculated in accordance with paragraph 3 of Schedule 14;

“anti-condensation heater” means a heater which prevents condensation on the refrigeration appliance;

“auto-defrost” means a feature by which compartments are defrosted without user intervention to—

- (a) initiate the removal of frost accumulation at all temperature-control settings; or
- (b) restore normal operation,

where the disposal of the defrosted water is automatic;

“auxiliary energy” (“E_{aux}”) means the energy used by an ambient controlled anti-condensation heater, expressed in kilowatt-hours per year (kWh/a);

“built-in appliance” means a refrigerating appliance that is designed, tested and marketed exclusively to be—

- (a) installed in cabinetry or encased (top, bottom and sides) by panels;
- (b) securely fastened to the sides, top or floor of the cabinetry or panels; and
- (c) equipped with an integral factory-finished face or to be fitted with a custom front panel;

“built-in factor” (“B_c”) means a compensation factor that takes into account whether the refrigerating appliance is built-in or freestanding, with values as set out Table 19 in Schedule 14.

“cellar compartment” means an unfrozen compartment with a target temperature of 12 °C and storage conditions ranging from 2 °C to 14 °C, as set out in Table 17 in Schedule 14;

“chill compartment” means a compartment which is able to control its average temperature within a certain range without user-adjustments of its control, with—

- (a) a target temperature equal to 2 °C; and

- (b) storage conditions ranging from $-3\text{ }^{\circ}\text{C}$ to $3\text{ }^{\circ}\text{C}$, as set out in Table 17 in Schedule 14;
- “climate class” means the range of ambient temperatures, as set out paragraph 1(10) of Schedule 14, in which the refrigerating appliances are intended to be used, and for which the required storage temperatures specified in Table 17 in Schedule 14 are met simultaneously in all compartment(s);
- “combi appliance” means a refrigerating appliance that has more than one compartment type of which at least one is an unfrozen compartment;
- “combi parameter” (“C”) means a modelling parameter that takes into account the synergy effect when different compartment types are combined in one appliance, with values as set out in Table 18 in Schedule 14;
- “daily energy consumption” (“ E_{daily} ”) means the electricity used by a refrigerating appliance over 24 hours at reference conditions, expressed in kilowatt hours per day (“kWh/24 h”), as calculated in accordance with paragraph 3(4) of Schedule 14;
- “declared values” means the values provided by the manufacturer, importer or authorised representative for the stated, calculated or measured technical parameters in the technical documentation, in accordance with the conformity assessment procedure referred to in regulation 29;
- “dedicated refrigerating appliance” means a refrigerating appliance with only one type of compartment;
- “defrost and recovery period” means the period from the initiation of a defrost control cycle until stable operating conditions are re-established;
- “defrost factor” (“ A_c ”) means a compensation factor that takes into account whether the refrigerating appliance has an auto-defrost or a manual defrost, with values as set out in Table 19 in Schedule 14;
- “defrost interval” (“ t_{d-f} ”) means the representative average interval, expressed in hour (h), between—
- one time of activation of the defrost heater and the next in two subsequent defrost and recovery cycles; or
 - where there is no defrost heater, one time of deactivation of the compressor and the next in two subsequent defrost and recovery cycles;
- “defrosting type” means the method to remove frost accumulation on the evaporator of a refrigerating appliance, being either auto-defrost or manual defrost;
- “dispenser” means a device that dispenses chilled or frozen load on demand from a refrigerating appliance, such as ice-cube dispensers or chilled water dispensers;
- “door heat loss factor” (“D”) means a compensation factor for combi appliances according to—
- the number of different temperature compartments; or
 - the number of external doors,
- whichever is lower, as set out in Table 19 in Schedule 14; for the purposes of this definition “compartment” does not include sub-compartment;
- “energy efficiency index” (“EEI”) means an index number for the relative energy efficiency of a refrigeration appliance expressed in per cent, as set out in paragraph 7 of Schedule 14;
- “equivalent model” means a model which has the same technical characteristics relevant for the technical information to be provided, but which is placed on the market or put into service by the same manufacturer, importer or authorised representative as another model with a different model identifier;

“fast freeze” means a feature that can be activated by the user according to the manufacturer’s, the importer’s or authorised representative’s instructions, which decreases the storage temperature of freezer compartment(s) to achieve a faster freezing of unfrozen foodstuffs;

“freestanding appliance” means a refrigerating appliance that is not a built-in appliance;

“fresh food compartment” means an unfrozen compartment with a target temperature of 4 °C and storage conditions ranging from 0 °C and 8 °C, as set out in Table 17 in Schedule 14;

“guarantee” means any undertaking by the retailer or a manufacturer, importer or authorised representative to the consumer to—

- (a) reimburse the price paid for the appliance; or
- (b) replace, repair or handle refrigerating appliances in any way,

if they do not meet the specifications set out in the guarantee statement or in the relevant advertising;

“incremental defrost and recovery energy consumption” (“ ΔE_{d-f} ”) means the extra average energy consumption for a defrost and recovery operation, expressed in watt hour (“Wh”);

“load factor” (“L”) means a factor accounting for the extra cooling load from introducing warm foodstuffs (beyond what is already anticipated through the higher average ambient temperature for testing), with values as set out in paragraph 3(7) of Schedule 14;

“low noise refrigerating appliance” means a refrigerating appliance—

- (a) without vapour compression; and
- (b) with airborne acoustical noise emission lower than 27 A-weighted decibel referred to 1 pico watt (dB(A) re 1 pW);

“manual defrost” means not having an auto-defrost function;

“maximum temperature” (“ T_{max} ”) means the maximum temperature inside a compartment during storage testing, as set out in Table 17 in Schedule 14;

“ M_c ” and “ N_c ” are modelling parameters that take into account the volume-dependence of the energy use, with values as set out in Table 18 in Schedule 14;

“minimum temperature” (“ T_{min} ”) means the minimum temperature inside a compartment during storage testing, as set out in Table 17 in Schedule 14;

“model identifier” means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trade mark or the same supplier’s name;

“network” means a communication infrastructure with a topology of links and an architecture that includes physical components, organisational principles, communication procedures and formats (protocols);

“pantry compartment” means an unfrozen compartment with a target temperature of 17 °C and storage conditions ranging from 14 °C to 20 °C, as set out in Table 17 in Schedule 14;

“professional repairer” means a person who provides services of repair and professional maintenance of refrigerating appliances;

“refrigerator-freezer” means a combi appliance that has at least one freezer compartment and at least one fresh food compartment;

“spare part” means a separate part that can replace a part with the same or similar function in a product;

“standard annual energy consumption” (“SAE”) means the reference annual energy consumption of a refrigerating appliance, expressed in kilowatt hours per year (kWh/a), as calculated in accordance with paragraph 4 of Schedule 14;

“steady-state power consumption” (“ P_{ss} ”) means the average power consumption in steady-state conditions, expressed in watt (“W”);

“thermodynamic parameter” (“ r_c ”) means a modelling parameter which corrects the standard annual energy consumption to an ambient temperature of 24 °C, with values as set out in Table 18 in Schedule 14;

“transparent door” means an external door made of a transparent material which allows the user to see items through it where—

- (c) at least 75 per cent of the internal cabinet height; and
- (d) 75 per cent of the internal cabinet width,

measured at the front of the cabinet, are transparent;

“unfrozen compartment” means a compartment type with a target temperature equal to or above 4 °C, including a pantry, wine storage, cellar or fresh food compartment with storage conditions and target temperatures, as set out in Table 17 in Schedule 14;

“vacuum insulation panel” (“VIP”) means an insulation panel consisting of a firm, highly-porous material encased in a thin, gas-tight outer envelope from which the gases are evacuated, and which is sealed to prevent outside gases from entering the panel;

“variable temperature compartment”—

- (a) means a compartment—
 - (i) intended for use as two or more alternative compartment types (for example a compartment that can be either a fresh food compartment or freezer compartment); and
 - (ii) which is capable of being set by a user to continuously maintain the operating temperature range applicable for each declared compartment type;
- (b) does not include a compartment intended for use as a single compartment type that can also meet storage conditions of other compartment types (for example a chill compartment that may also fulfil the requirements of a 0-star compartment);

“wine storage appliance” means a dedicated refrigerating appliance for the storage of wine, with precision temperature control for the storage conditions and target temperature of a wine storage compartment, and equipped with anti-vibration measures;

“wine storage compartment” means an unfrozen compartment with—

- (a) a target temperature of 12 °C;
- (b) an internal humidity range from 50 per cent to 80 per cent; and
- (c) storage conditions ranging from 5 °C to 20 °C, as specified in Table 17 in Schedule 14;

“winter setting” means a control feature for a combi appliance with one compressor and one thermostat, which—

- (a) according to the manufacturer’s, importer’s or authorised representative’s instructions can be used in ambient temperatures below +16 °C; and
- (b) consists of a switching device or function that guarantees, even if it would not be required for the compartment where the thermostat is located, that the compressor will continue to maintain the proper storage temperatures in all compartments.

Energy efficiency requirements

2.—(1) The EEI of refrigerating appliances specified in Table 16 must not be above—

- (a) until 29 February 2024, the values set out in column 2 of Table 16;

- (b) from 1 March 2024, the values set out in column 3 of Table 16.

Table 16

Maximum EEI for refrigerating appliances, expressed in per cent

| | <i>EEI until 29 February 2024</i> | <i>EEI from 1 March 2024</i> |
|--|-----------------------------------|------------------------------|
| Dedicated low noise refrigerating appliances with fresh food compartments | 375 | 312 |
| Low noise refrigerating appliances with transparent doors | 380 | 300 |
| Other low noise refrigerating appliances, except low noise combi appliances with a frozen compartment | 300 | 250 |
| Wine storage appliances with transparent doors | 190 | 172 |
| Other wine storage appliances | 155 | 140 |
| All other refrigerating appliances, with the exception of low noise combi appliances with a frozen compartment | 125 | 100 |

Functional requirements

3.—(1) Subject to sub-paragraph (8), refrigerating appliances must meet the following requirements.

(2) Any fast freeze facility, or any similar function achieved through modification of the temperature settings in freezer compartments, must automatically revert to the manufacturer setting no more than 72 hours after being activated by the user according to the manufacturer’s instructions.

(3) Winter settings must be automatically activated or de-activated in order to maintain frozen compartments at the correct temperature.

(4) Each compartment must be marked with the appropriate identification symbol, as follows—

- (a) for frozen compartments, the number of stars of the compartment;
- (b) for chill and unfrozen compartments, an indication, provided by the manufacturer, authorised representative or importer, of the type of food that should be stored in the compartment.

(5) If the refrigerating appliance contains vacuum insulation panels, the refrigerating appliance must be clearly labelled with the letters “VIP”, in such a way that the labelling is clearly visible, legible and indelible.

(6) For 2-star sub-compartments or 2-star sections—

- (a) a 2-star sub-compartment or 2-star section must be separated from the 3-star or 4-star compartment by a partition, container, or similar construction;
- (b) the volume of the 2-star sub-compartment or 2-star section must not exceed 20 per cent of the total volume of the compartment in which it is contained.

(7) For 4-star compartments, the freezing time to bring the temperature of a light load from +25 to -18 °C at an ambient temperature of 25 °C must be such that the resulting freezing capacity is not lower than 4.5 kg per 24 h per 100 litres of volume of the freezer compartment, with a minimum of 2.0 kg/24 h;

(8) Until 1 March 2024, sub-paragraphs (2) and (3) do not apply to combi appliances with one electromechanical thermostat and one compressor which are not equipped with an electronic control board.

Resource efficiency requirements

4.—(1) Refrigerating appliances must meet the following requirements.

Availability of spare parts

(2) Manufacturers, authorised representatives or importers of refrigerating appliances must make available to professional repairers at least the following spare parts, for a minimum period of seven years after placing the last unit of the model on the market—

- (a) light sources;
- (b) printed circuit boards;
- (c) temperature sensors;
- (d) thermostats.

(3) Manufacturers, authorised representatives and importers of refrigerating appliances must make available to professional repairers and end-users at least the following spare parts, for a minimum period of 10 years after placing the last unit of the model on the market—

- (a) door handles;
- (b) door hinges;
- (c) trays and baskets.

(4) Manufacturers must ensure that the spare parts referred to in sub-paragraphs (2) and (3) can be replaced with the use of commonly available tools and without permanent damage to the machine.

(5) The manufacturer, authorised representative or importer must—

- (a) no later than two years after the first unit of a model is placed on the market, publish for that product the list of spare parts referred to in sub-paragraph (2) and the procedure for ordering them on a website which is accessible to the public without charge; and
- (b) ensure that the information referred to in paragraph (a) remains accessible throughout the period that the spare parts remain available.

(6) When the first unit of a model is placed on the market, the manufacturer, authorised representative or importer must—

- (a) publish for that product—
 - (i) the list of spare parts referred to in sub-paragraph (3);
 - (ii) the procedure for ordering them; and
 - (iii) the repair instructions;on a website which is accessible to the public without charge; and
- (b) ensure that the information referred to in paragraph (a) remains accessible throughout the period that the spare parts remain available.

Maximum delivery time of spare parts

(7) Subject to sub-paragraph (8), during the periods referred to in sub-paragraphs (2) and (3), the manufacturer, importer or authorised representative must ensure delivery of spare parts within 15 working days of receiving an order.

(8) In relation to products specified in sub-paragraph (2), sub-paragraph (7) does not apply to repairers who have not registered with the manufacturer, importer or authorised representative in accordance with sub-paragraph (10).

Access to repair and maintenance information

(9) From no later than two years after the placing on the market of the first unit of a model or of an equivalent model until the end of the period referred to in sub-paragraph (2), the manufacturer, importer or authorised representative must provide access to appliance repair and maintenance information to professional repairers in accordance with the following provisions.

(10) The manufacturer's, importer's or authorised representative's website must set out the process for professional repairers to register for access to repair and maintenance information.

(11) Before granting access to the information, manufacturer, authorised representative or importer may require the professional repairer to demonstrate that—

- (a) the professional repairer has the technical competence to repair refrigerating appliances, and complies with the Electricity at Work Regulations 1989;
- (b) the professional repairer is covered by insurance for liabilities resulting from its activities.

(12) The request for registration must be accepted or refused within 5 working days from the date of the request.

(13) Manufacturers, authorised representatives or importers may charge reasonable and proportionate fees for access to the repair and maintenance information or for receiving regular updates. A fee is reasonable if it does not discourage access by failing to take into account the extent to which the professional repairer uses the information.

(14) Once registered, a professional repairer must be given access to requested repair and maintenance information within one working day of any request. The information may be provided for an equivalent model or model of the same family, if appropriate. The available repair and maintenance information must include—

- (a) the unequivocal appliance identification;
- (b) a disassembly map or exploded view;
- (c) list of necessary repair and test equipment;
- (d) component and diagnosis information (such as minimum and maximum theoretical values for measurements);
- (e) wiring and connection diagrams;
- (f) diagnostic fault and error codes (including manufacturer-specific codes, where applicable); and
- (g) data records of reported failure incidents stored on the refrigerating appliance (where applicable).

Requirements for dismantling for material recovery and recycling

(15) Manufacturers, importers or authorised representatives must ensure that refrigerating appliances are designed in such a way that the materials and components referred to in Annex 7 of the WEEE Directive can be removed with the use of commonly available tools.

Information requirements

5.—(1) Manufacturers, their authorised representatives or importers of refrigerating appliances must provide the information specified in sub-paragraph (3) in the form of instruction manuals for installers and end-users.

(2) The information referred to in sub-paragraph (1) must be made available on a website which is accessible to the public without charge.

(3) The information referred to in sub-paragraph (1) is—

- (a) the combination of drawers, baskets and shelves that result in the most efficient use of energy for the refrigerating appliance;
- (b) guidance about where and how to store foodstuffs in a refrigerating appliance for best preservation over the longest period, to avoid food waste;
- (c) the recommended setting of temperatures in each compartment for optimum food preservation. These settings must accord with the storage conditions set out in Table 17 in Schedule 14;
- (d) an estimation of the impact of temperature settings on food waste;
- (e) a description of the effects of special modes and features, and in particular how temperatures are affected in each compartment and for how long;
- (f) for wine storage appliances, a statement that the appliance is intended to be used exclusively for the storage of wine;
- (g) instructions for the correct installation and end-user maintenance, including cleaning, of the refrigerating appliance;
- (h) for a freestanding refrigerating appliance, a statement that it is not intended to be used as a built-in appliance;
- (i) for appliances without a 4-star compartment, a statement that the appliance is not suitable for freezing foodstuffs;
- (j) how to access professional repair such as internet web pages, addresses and contact details;
- (k) relevant information for ordering spare parts, directly or through other channels provided by the manufacturer, importer or authorised representative;
- (l) the minimum period during which spare parts, necessary for the repair of the appliance, are available;
- (m) the minimum duration of the guarantee of the refrigerating appliance offered by the manufacturer, importer or authorised representative;
- (n) for refrigerating appliances with climate class, the following statements—
 - (i) extended temperate: ‘this refrigerating appliance is intended to be used at ambient temperatures ranging from 10 °C to 32 °C’;
 - (ii) temperate: ‘this refrigerating appliance is intended to be used at ambient temperatures ranging from 16 °C to 32 °C’;
 - (iii) subtropical: ‘this refrigerating appliance is intended to be used at ambient temperatures ranging from 16 °C to 38 °C’;
 - (iv) tropical: ‘this refrigerating appliance is intended to be used at ambient temperatures ranging from 16 °C to 43 °C’;
- (o) instructions on how to find the model information on a publicly accessible website.

(4) The instruction manuals referred to in sub-paragraph (1) must be provided with the product when it is placed on the market.

Technical documentation requirements

6.—(1) The technical documentation file required for the conformity assessment of the product must comply with the following.

(2) Where the information in the technical documentation for a particular model has been obtained—

- (a) from a model that has the same technical characteristics relevant for the technical information to be provided but is produced by a different manufacturer;
- (b) by calculation on the basis of design or extrapolation from another model of the same or a different manufacturer; or
- (c) by both paragraphs (a) and (b);

the technical documentation must include the details of any such calculation and the assessment undertaken by the manufacturer to verify the accuracy of the calculation, and, where appropriate, the declaration of identity between the models of different manufacturers.

(3) The technical documentation must include a list of all equivalent models, including the model identifiers.

(4) The technical documentation must include all the information specified in Annex 6 of Commission Delegated Regulation (EU) 2019/2016 of 11 March 2019⁽¹⁾ supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances (the labelling regulation).

(5) The information referred to in paragraph (4) must be provided in the order and format set out in Annex 6 of the labelling regulation.

(1) EUR 2019/2016; relevant amending instrument is [S.I. 2020/1528](#).