

## ANNEX

### FRAMEWORK

In order to qualify for the eco-label, a portable computer (hereinafter referred to as ‘the product’) must fall within the product group as defined in Article 1, and must comply with the following criteria in this Annex and with tests carried out on application as indicated in the criteria. Testing shall be performed by laboratories that meet the general requirements expressed in standard EN ISO 17025. Where appropriate, other test methods may be used if their equivalence is accepted by the competent body assessing the application. Where no tests are mentioned, or are mentioned as being for use in verification or monitoring, competent bodies should rely, as appropriate, on declarations and documentation provided by the applicant and/or independent verifications.

The competent bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS or ISO 14001, when assessing applications and monitoring compliance with the criteria in this Annex. (*Note: it is not required to implement such management schemes.*)

#### ECOLOGICAL CRITERIA

##### 1. Energy savings

The portable computer shall be equipped with an easily accessible on/off switch.

The portable computer shall support the ACPI<sup>(1)</sup> S3 sleep state (suspend to RAM) to allow minimum energy consumption of no more than 3 watts. The computer shall be able to wake up from this mode in response to a command from any of the following:

- modem,
- network connection,
- keyboard or mouse action.

The default mode-change time from operation to the ACPI S3 sleep state shall be no more than 15 minutes of inactivity. The manufacturer must enable this feature.

The portable computer shall have a maximum off-mode consumption of no more than 2 watts when the battery is fully charged and the power supply is connected to the electricity supply. In this context, the off-mode is the state initiated through the command to shut down the computer.

The power supply of the portable computer shall have a maximum consumption of no more than 0,75 watt when it is connected to the electricity supply but is not connected to the computer.

*The applicant shall provide the competent body with a report certifying that the level of power consumption in both the ACPI S3 mode and the off-mode have been measured using the procedure in the current Energy Star<sup>(2)</sup> computer memorandum of understanding. The report shall state the measured power consumptions in both of these modes. The applicant shall declare compliance with the power supply requirement.*

##### 2. Lifetime extension

The availability of compatible batteries and power supplies and of the keyboard and its parts shall be guaranteed for three years from the time that production ceases. In addition the portable computer shall meet the following criteria:

- the computer shall be designed so that the memory is easily accessible and can be changed,
- the computer shall be designed so that the hard disk, and if available either the CD drive or DVD drive, can be changed.

The applicant shall declare the compliance of the product with these requirements to the competent body.

### 3. Mercury content of the display

The background lighting of the flat panel display shall not contain more than 3 mg of mercury on average per lamp. The display of a personal data assistant (PDA) shall contain no mercury.

*The applicant shall declare the compliance of the product with these requirements to the competent body.*

### 4. Noise

The 'declared A-weighted sound power level' (re lpW) of the portable computer, according to paragraph 3.2.5 of ISO 9296, shall not exceed:

- 3,5 B(A) in the idle operating mode (equivalent to 35 dB(A)),
- 4,0 B(A) when accessing a hard-disk drive (equivalent to 40 dB(A)).

*The applicant shall provide a report to the competent body, prepared by an independent test laboratory accredited to ISO 17025, certifying that the levels of noise emissions have been measured in accordance with ISO 7779 and declared in accordance with ISO 9296. The report shall state the measured levels of noise emissions in both the idle operating mode and when accessing a disk drive, and be declared in accordance with paragraph 3.2.5 of ISO 9296.*

### 5. Electromagnetic emissions

The portable computer shall meet the requirements set out in EN50279, Category A.

*The applicant shall provide a report to the competent body showing that the product's emissions are compliant with the requirement.*

### 6. Take-back, recycling and hazardous substances

The manufacturer shall offer, free-of-charge, the take-back for refurbishment or recycling of the product and for any component being replaced, except for items contaminated by users (e.g. in medical or nuclear applications). In addition, the product shall meet the following criteria:

- (a) one qualified person alone, shall be able to dismantle it;
- (b) the manufacturer shall check the disassembly of the unit and provide a disassembly report that shall be made available to third parties on request. Amongst others, the report shall confirm that:
  - connections are easy to find and accessible,
  - connections are as standardised as possible,
  - connections are accessible with commonly available tools,
  - the background lighting lamps of LCD monitors are easily separable;
- (c) hazardous materials shall be separable;
- (d) 90 % (by weight) of plastic and metal materials in the housing and chassis shall be technically recyclable;
- (e) if labels are required, they shall be easily separable or inherent;
- (f) plastic parts shall:
  - have no lead or cadmium intentionally added,

- be of one polymer or compatible polymers, except for the cover, which shall consist of no more than two types of polymers which are separable,
  - contain no metal inlays that cannot be separated by a single person using simple tools;
- (g) plastic parts shall not contain polybrominated biphenyl (PBB) or polybrominated diphenyl ether (PBDE) flame retardants as listed in Article 4 of Directive 2002/95/EC of the European Parliament and of the Council<sup>(3)</sup>. This requirement shall take account of subsequent adaptations and amendments made to that Directive regarding the use of Deca-BDE.

Plastic parts shall not contain chloroparaffin flame retardants with chain length 10 to 17 carbon atoms and chlorine content greater than 50 % by weight (CAS No 85535-84-8 and CAS No 85535-85-9).

*The applicant shall declare compliance with this requirement to the competent body;*

- (h) plastic parts heavier than 25 grams shall not contain flame retardant substances or preparations that are assigned at the time of applying for the eco-label any of the risk phrases:

Dangerous for health:

R45 (may cause cancer)

R46 (may cause heritable genetic damage)

R60 (may impair fertility)

R61 (may cause harm to the unborn child)

Dangerous for the environment:

R50 (very toxic to aquatic organisms)

R50/R53 (very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment)

R51/R53 (toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment)

as defined in Council Directive 67/548/EEC<sup>(4)</sup>;

- (i) plastic parts shall have a permanent marking identifying the material, in conformity with ISO 11469:2000. Excluded from this criterion are extruded plastic materials and the light-guide of flat panel displays;
- (j) batteries shall not contain more than 0,0001 % of mercury, 0,001 % of cadmium or 0,01 % of lead by weight of the battery.

*The applicant shall declare the compliance of the product with these requirements and shall provide to the competent body assessing the application a copy of the disassembly report.*

With reference to criterion 6(h), the flame retardants that are used, if any, shall not have been assigned any of the above risk phrases nor shall they be named in Annex 1 to Directive 67/548/EEC or its subsequent amendments regarding the classification, packaging and labelling of dangerous substances. This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the R-phrases listed above, and where less than 0,1 % of the flame retardant in the treated part remains in the form as before application. Any flame retardants that are used in plastic parts >25g must be specified in the application documentation by giving their name and CAS number.

## 7. User instructions

The product shall be sold with relevant user information, which provides advice on proper environmental use and, in particular:

- (a) recommendations for the use of the power management features, including information that disabling these features can lead to higher consumption of energy and thus can increase the running costs;
- (b) information that the energy drawn from the mains can be reduced to zero if the power supply is unplugged or if the wall socket is switched off;
- (c) information on the guarantee and the availability of spare parts. When it is appropriate for the consumer to upgrade or exchange components, information on the proper procedures shall be given;
- (d) information about the fact that the product has been designed to enable proper reuse of parts and recycling and should not be thrown away;
- (e) advice on how the consumer can make use of the manufacturer's take-back offer;
- (f) information as to how to make appropriate use of wireless local area network (WLAN) cards thus minimising security risks;
- (g) information that the product has been awarded the Community eco-label with a brief explanation as to what this means together with an indication that more information on the eco-label can be found at the website address (<http://europa.eu.int/ecolabel>).

*The applicant shall declare the compliance of the product with these requirements, and shall provide a copy of the instruction manual to the competent body assessing the application.*

## 8. Packaging

Packaging shall meet the following requirements:

- (a) All packaging components shall be easily separable by hand into individual materials to facilitate recycling.
- (b) Where used, cardboard packaging shall consist of at least 80 % recycled material.

*Assessment and verification: The applicant shall declare compliance with the requirement and provide a sample(s) of the packaging to the awarding competent body as part of the application.*

## 9. Information appearing on the eco-label

Box 2 of the eco-label shall include the following text:

- reduced energy consumption,
- designed to facilitate recycling,
- reduced noise level.

*The applicant shall declare the compliance of the product with this requirement, and shall provide a copy of the eco-label as it will appear on the packaging and/or product and/or accompanying documentation to the competent body.*

- (1) Advanced configuration and power interface (ACPI).
- (2) As defined by the United States Environmental Protection Agency, [http://www.energystar.gov/index.cfm?c=computers.pr\\_crit\\_computers](http://www.energystar.gov/index.cfm?c=computers.pr_crit_computers)
- (3) [OJ L 37,13.2.2003, p. 19.](#)
- (4) [OJ L 196, 16.8.1967, p. 1.](#)