

User Manual

**EU Ecolabel electronic displays**

European Commission

EU Ecolabel electronic displays

Commission Decision 2020/1804/EU

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Using this manual

This manual guides you through the process of applying for an EU Ecolabel licence, in accordance with the applicable Criteria requirements. The following symbols are used throughout it:

|  |  |
| --- | --- |
| **Symbol** | **Description** |
| |  | | --- | | 🛈 | | If necessary for the interpretation of the criterion, subtitles with explanations, examples of calculations, decisions from the Competent Body Forum, etc. |
| |  | | --- | |  | | Boxes with definitions or additional explanations of technical terms that could complement the definitions already included in the article 2 of the Commission Decision (EU) 2018/1702. |
| https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G | Notable or important information. |
| |  | | --- | | 🖹 | | Documentation on how to fill in the verification form and information about documents to be handed in with the application. |
| https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcQLXZJ-zN4LYY1RST1n1Tf4AMkcAVIjiyZlw_WlCU2NgrztBKc | Website links where further information can be found. |

The manual is structured as follows:

* **Part A: General Information** – Provides information about the EU Ecolabel, details of the application process, and answers to frequently asked questions about applying.
* **Part B: Product Assessment and Verification** – Outlines the Criteria for a specific product group set out in the Commission Decision.

The manual contains the following elements as **separate files**:

* **Part C and D: Verification form**  – This verification form should be completed by the applicant. The verification form includes general information from the product and the applicant **(application form)** and includes the **declarations from the applicant** for each requirement .In order to facilitate the application process, this verification for can be provided electronically to the competent body.
* **Annex I. Declarations from suppliers file.** This document consists of the declarations needed from suppliers. The applicant shall gather all the declarations from his suppliers and provide them to the assessing Competent Body together with the verification form. These declarations can also be provided directly from the supplier to the Competent Body.
* **Part E**: Checklist

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G **Please read this manual all the way through before completing and submitting the verification form or any other documentation.** **EU Ecolabel** [**Competent Bodies**](https://ec.europa.eu/environment/ecolabel/competent-bodies.html) **can help licence holders understand the EU Ecolabel Criteria and can provide guidance on how to assemble an application dossier.**

Introduction

This User Manual[[1]](#footnote-1) is for guidance only and is designed to help you to apply for the EU Ecolabel for Electronic Displays. It includes an outline of all data, tests and documentation that are required to demonstrate compliance with the criteria.

The basis for the manual is the Commission Decision (EU) 2020/1804 of 27 November 2020 establishing the EU Ecolabel criteria for Electronic Displas. A copy of the criteria can be found at:

* <http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html>

This document is not aimed to duplicate the content of the criteria but is intended to support their interpretation, and only focused on helpful explanations and clarifications. Each criterion name appears as heading under Part B with a short summary of what documents are needed for the verification of the criterion. The exact criterion text does not appear in this user manual. Only additional information, clarifications and explanations are included.

* Please read the Commission Decision (EU) 2020/1804 of 27 November 2020 establishing the EU Ecolabel criteria for Electronic Displays and this manual all the way through before completing and submitting the verification form or any other documentation.

For general questions about the EU Ecolabel and the application process please check out following pages:

* <http://ec.europa.eu/environment/ecolabel/faq.html>

<http://ec.europa.eu/environment/ecolabel/how-to-apply-for-eu-ecolabel.html>

# General Information

Part A “General information” is a horizontal document for all EU Ecolabel products explaining the different steps of the application process in detail. It has been translated in each Member State language and can be found at:

https://ec.europa.eu/environment/ecolabel/documents.html

# Product Assessment and Verification

## Product Group Criteria

Criteria for awarding the EU Ecolabel to ‘electronic displays’ are listed in Table 1.

Table 1: EU Ecolabel Criteria for electronic displays

| Criteria | Sub-Criteria |
| --- | --- |
| 1 - Energy Consumption | 1.1. – Energy savings  1.2. – Power management |
| 2 - Restricted substances | 2. 1. Excluded or limited substances  2.2. Activities to reduce supply chain fluorinated greenhouse gas (GHG) emissions |
| 3 – Reparability and commercial guarateee |  |
| 4 -End-of-life management | 4.1. Material selection and information to improve recyclability  4.2. Design for dismantling and recycling |
| 5 - Corporate social responsibility | 5.1. Labour conditions during manufacture  5.2. - Sourcing of 'conflict-free minerals’ |
| 6 - Information criteria | 6.1. User information  6.2. Information appearing on the Ecolabel |

1. **Step-by-step walkthrough through the criteria**

It is recommended that you start checking internally, if the candidate products can fulfill the criteria. Before you start:

* Make sure the candidate product fulfils all applicable legal requirements of the country or countries in which the product is intended to be placed on the market.
* Download the verification form. Availabel at: https://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html

**Verification form**

* In the verification form you have to fill in the grey fields.
* Please fill in the grey fields in the sheet ”application form”.
* Provide relevant evidence on the status of your company and if applicable EMAS or ISO 14001 certificates. This is related to the application fees.

1. **For which products can applications be made?**

* Check whether the candidate product is in the scope (Article 1 of the Commission Decision).
* The criteria cover televisions, monitors and digital signage displays. Products are defined in Article 2 of the Commission Decision.

**Verification form**

* Specify the type of product and the registered trade name under "the product " section in the sheet ”application form”.

## Criterion 1 Energy consumption

## 1.1 Energy savings

This criterion cover the following sub-requirements:

1. “Electronic displays shall meet at least the energy efficiency classes specified in the criterion”
2. maximum on mode power demand: ≤ 64 W (125W for digital signage displays, for UHD resolutions and above).

|  |
| --- |
| * ‘on mode’ or ‘active mode’ means a condition in which the electronic display is connected to a power source, has been activated, and is providing one or more of its display functions; * ‘UHD’ means an electronic display able to receive a UHD signal as defined in International Telecommunications Union Recommendation (ITU-R) BT.2020, and to display it on the screen at resolutions of 3 840 × 2 160 (UHD-4K) and 7 680 × 4 320 (UHD-8K). * ‘normal configuration’ or ‘home configuration’, ‘standard mode’, or, for televisions, ‘home mode’ means a display screen setting which is recommended to the end user by the manufacturer from the initial set-up menu or the factory setting that the electronic display has for the intended product use. It must deliver the optimal quality for the end user in a typical domestic or office environment. The normal configuration is the condition in which the declared values for off, standby, networked standby and on mode are measured; * ‘High Dynamic Range (HDR)’ means a method to increase the contrast ratio of the image of an electronic display by using metadata generated during the creation of the video material and that the display management circuitry interprets to produce a contrast ratio and colour rendering perceived by the human eye as more realistic than that achieved by non HDR-compatible displays; |

#### (a) Energy efficiency class

**Required documentation for Assessment and verification:**

* Declaration in the verification form (sheet declaration criterion 1.1.).
* Test report to demonstrating the Energy efficciency class of the display. It shall be carried out according to the measurement methods indicated in Annex IV to Delegated Regulation (EU) 2019/2013.
* After March 2021: evidence of the top classes on EPREL database (with available models for the resolution and type of display model to be awarded). EPREL database info can be found at:
* <https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/product-database_en>
* The applicant shall provide evidence of the energy efficiency class met and the available models in EPREL database at least every two years during the validity period.

🛈 **Identification of top 2 energy classes in EPREL database**: The top 2 energy classes must sum at least 25 registered models to be considered for a specific resolution and type of display (televisions, monitor or signage displays). In the case that 25 registered models minimum is not reached for a certain resolution and type of display, the top 2 energy classes which have registered models (independently on number of registered models) apply for this specific resolution and type of display.

Practical examples:

For a specific model (considered the type of Display and its resolution) we have following registered models:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E |
| Example 1 | - | 2 | 30 | 150 | 300 |
| Example 2 | - | 1 | 15 | 100 | 450 |
| Example 3 (when the minimum is not reached) | - | 1 | 8 | 9 | 15 |

The eligible classes are marked in red.

#### (b) maximum on mode power demand in normal configuration

**Required documentation for Assessment and verification:**

* Declaration in the verification form (sheet declaration criterion 1.1.).
* The applicant shall submit a test report for the electronic display carried out according to the measurement methods and conditions indicated under points 1 and 2 of Annex III to Regulation (EU) 2019/2021.
* Note: For displays presenting the HDR feature, measurement of the on mode power consumption to meet requirements (a) and (b) shall be done in the normal configuration, in standard dynamic range (SDR).

## 1.2. Power management

This criterion covers the following sub-requirements:

1. Manual Brightness Control.
2. Automatic Brightness Control (ABC).
3. Quick start functionality.

|  |
| --- |
| * ‘Automatic Brightness Control’ (‘ABC’) means the automatic mechanism that, when enabled, controls the brightness of an electronic display as a function of the ambient light level illuminating the front of the display; * ‘default’ referring to a specific setting, means the value of a specific feature as set at the factory and available when the customer uses the product for the first time and after performing a ‘reset to factory settings’ action, if allowed by the product; * ‘fast start’ or ‘quick start’ means an enhanced reactivation function capable of completing the transition into ‘on mode’ in a shorter time than that of the normal reactivation function; |

**Required documentation for Assessment and verification:**

* Declaration in the verification form (sheet Declaration-Criterion 1.2).
* **Only if ABC available**: Test report for the electronic display showing that requirements to qualify for a 10 % reduction in Pmeasured described in Annex II of the Regulation (EU) 2019/2021 (section B, point 1) are met. The relevant measurements shall be carried out according to Annex III to Regulation (EU) 2019/2021.
* **Only if Fast start functionality available**: A copy of relevant pages of the product documentation showing that appliance automatically switch back to standby or off mode as a default setting 2 hours after the last user activity at the latest

## Criterion 2. Restricted substances

## 2.1. Excluded or limited substances

This criterion covers the following sub-requirements:

1. Restrictions on Substances of Very High Concern (SVHCs)
2. Restrictions on the presence of specific substances.
3. Resctrictions based on CLP classifications.

#### (a) Restrictions on Substances of Very High Concern (SVHCs)

SHVCs shall not be intentionally added to the product and subassemblies (as defined below) at concentrations greater than 0,10% (weight by weight).

Scope of this requirement:

|  |
| --- |
| **Final product: Electronic Display** |
| **Printed Circuit Boards** (Printed Wiring Boards, populated motherboards, power boards (power supply units) and module boards )>10 cm2 |
| **Electrical wiring/cables** (aggregated) |
| **External cables** (Power cable (AC and DC power cords), modem cable and LAN cable if applicable, HDMI cable and RCA cable) |
| **External housing** (Back cover, front cover (bezel decoration) and stands) |
| **External housing of remote control** |
| **LED backlights** (LED arrays) |

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G *No derogation from this requirement shall be granted*

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G *In communicating this requirement to suppliers of the listed sub-assemblies applicants may pre-screen the candidate list based on the relevance of substances to the product using the* [*IEC 62474 declarable substance list*](http://std.iec.ch/iec62474)*. The screening shall be based on identification of the potential for presence of substances in the product..*

* **Compile declarations from suppliers (annex I)** of the non-presence of SVHCs above 0,10% (weight by weight) for the product and the sub-assemblies identified in table above.

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G Declarations shall be with reference to the latest version of the [*Candidate List*](http://www.echa.europa.eu/candidate-list-table) published by ECHA.

**Required documentation for Assessment and verification:**

* Declaration from applicant in the verification form (sheet: Declaration-Criterion 2.1-2.2).
* **Annex I:** **Compiled declarations** from suppliers. of the non-presence of SVHCs above 0,10% (weight by weight) for the product and the sub-assemblies. Where declarations are made based on a pre-screening of the candidate list using IEC 62474 the screened list given to sub-assembly suppliers shall also be provided by the applicant. The version of the IEC 62474 declarable substance list used shall reflect the latest version of the Candidate List.
* Declarations in annex I can also be provided directly to competent bodies by any supplier in the applicant’s supply chain.

**Relevant links::**

* Candidate List: <https://www.echa.europa.eu/candidate-list-table>
* IEC 62474 declarable substance list: <http://std.iec.ch/iec62474>

#### (b) Restrictions on the presence of specific substances

The hazardous substances specified in following table shall not be intentionally added to the specified sub-assemblies and component parts at or above the stipulated concentration limits.

Table 2. Substance restrictions that shall apply to sub-assemblies and component parts, and assessment and verification

|  |  |  |  |
| --- | --- | --- | --- |
| **Substance group** | **Scope of restriction** | **Concentration limits (where applicable)** | **Assessment and verification** |
| (i) Metal solder and contacts | [RoHS Directive](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011L0065) exemption 8b relating to the use of *cadmium in metal contacts* shall not be permitted. | 0.01% w/w | * Declaration to be provided by the manufacturer or final assembler supported by a valid test result. (in te verification form).   *Test method:* [IEC 62321-3-1](https://webstore.iec.ch/publication/6830) |
| (ii) Polymer stabilisers, colourants and contaminants | The following organotin stabiliser compounds classified with Group 1 and 2 hazards shall not be present in *external cables*.   * Dibutyltin oxide * Dibutyltin diacetate * Dibutyltin dilaurate * Dibutyltin maleate * Dioctyl tin oxide * Dioctyl dilaurate | n/a | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |
| *External plastic housing of the display* shall not contain the following colourants:   * Azo dyes that may cleave to the carcinogenic aryl amines listed in Appendix 8 of the REACH Regulation, and/or * Colourant compounds included in the IEC 62474 declarable substances list. | n/a | * Declaration to be provided by the manufacturer or final assembler. (in the verification form). |
| Polycyclic Aromatic Hydrocarbons (PAHs) classified with Group 1 and 2 hazards shall not be present at concentrations greater than or equal to individual and sum total concentration limits in any external plastic or man-made rubber surfaces of:   * *External cables* * *External plastic housing of the remote control* * *Rubber parts of the remote control*   *PAH's restricted by the REACH Regulation:*   * Benzo[a]pyrene, * Benzo[e]pyrene, * Benzo[a]anthracene, * Chrysen, * Benzo[b]fluoranthene, * Benzo[j]fluoranthene, * Benzo[k]fluoranthene * Dibenzo[a,h]anthracene,   *Additional PAH's subject to restriction:*   * Acenaphthene * Acenaphthylene * Anthracene * Benzo[ghi]perylene * Fluoranthene * Fluorene * Indeno[1,2,3-cd]pyrene * Naphthalene * Phenanthrene * Pyrene | The individual concentration limits for PAHs restricted under REACH shall be 1 mg/kg  The sum total concentration limit for the 18 listed PAHs shall not be greater than 10 mg/kg | * Declaration to be provided by the manufacturer or final assembler supported by a valid test result. (in te verification form).   Test report to be provided by the applicant for relevant parts of the identified parts of the product. *Test method*: AfPS GS 2014:01 PAK |
| (iii)Biocides | Biocides intended to provide an anti-bacterial function shall not be incorporated to:   * *External plastic housing of the remote control* * *Rubber parts of the remote control* | n/a | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |
| iv) Mercury in backlights | Exemption 3 in accordance with Directive 2011/65/EU relating to the use of mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) shall not be permitted. | n/a | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |
| (v) Glass fining agents | Arsenic and its compounds shall not be used in the manufacturing of LCD display unit glass and screen cover glass. | 0.0050% w/w | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |
| vi) Chlorine-based plastics | Plastic parts >25g must not contain chlorinated polymers.  Note: For this specific sub-requirement, plastic cable housing is not considered as a “plastic part”. | n/a | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |
| vii) Phthalates | Diisononyl phthalate (DINP), Diisodecyl phthalate (DIDP) shall not be used in external power cables. | n/a | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). |

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1GThe applicant shall compile declarations from suppliers and provide them, supported by test reports where indicated. All these declarations are included in the **Annex I**.

**Required documentation for Assessment and verification:**

* Declaration form applicant in the verification form (sheet: Declaration criteria 2.1-2.2.)
* **Annex I:** **Compiled declarations** from suppliers.
* Supporting test reports provided by suppliers where specified in Annex I.
* Declarations in annex I can also be provided directly to competent bodies by any supplier in the applicant’s supply chain.

#### (c) Restrictions based on CLP hazard classifications

**Flame retardants and plasticisers** that are assigned any of the hazard classes, categories and associated hazard statement codes listed in Table 1 of the Commission Decision shall not be intentionally added to sub-assemblies and component parts defined in following table at or above a concentration limit of 0,10% (weight by weight).

Table 3 Sub-assemblies and component parts to which Criterion 2.1.(c) shall apply

|  |
| --- |
| *Parts containing flame retardants*   * Printed Circuit Boards * External cables * External plastic housing of the display   *Parts containing plasticisers*   * External cables * Internal electrical wiring * External plastic housing of the display |

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1GThe use of classified flame retardants and plasticisers are derogated provided that they meet the conditions specified in Table 4.

Table 4. Derogations conditions that shall apply to the use of flame retardants and plasticisers, and assement and verification documents

|  |  |  |  |
| --- | --- | --- | --- |
| **Substances** | **Sub-assembly or component part** | **Scope of derogation** | **Assessment and verification** |
| Flame retardants | Printed Circuit Boards | Flame retardants classified with Group 3 hazards and TBBPA (classified with Group 2) are derogated for use. | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). * SDS supporting their hazard classification or non-classification |
| External cables | Flame retardant and its synergist classified with Group 3 hazard and Antimony trioxide (Sb2O3) classified with Group 2 hazards are derogated for use. | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). * SDS supporting their hazard classification or non-classification |
| External plastic housing of the display | Flame retardants and their synergists classified with Group 2 and 3 hazards are derogated for use. | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). * SDS supporting their hazard classification or non-classification |
| Plasticisers | External cables, Internal electrical wiring and External plastic housing of the display | Plasticisers classified with Group 3 hazards are derogated for use. | * Declaration to be provided by the manufacturer or final assembler. (in te verification form). * SDS supporting their hazard classification or non-classification |

**Required documentation for Assessment and verification:**

* Declaraion included in the **verification form** (sheet: Declaration criteria 2.1-2.2.)

***From componet suppliers (annex I):***

* **Declarations in annex I for the different components.**
* ***SDS supporting hazard classification or non-classification.*** The following information shall be provided to support declarations of the hazard classification or non-classification for each substance identified as being used:

(i) The substance’s CAS, EC or list number;

(ii) The physical form and state in which the substance is used;

(iii) Harmonised CLP hazard classifications;

(iv) Self-classification entries in ECHA’s REACH registered substance database .

* Declarations (annex I) can also be provided directly to competent bodies by any supplier in the applicant’s supply chain.

## 2.2. Activities to reduce supply chain fluorinated greenhouse gas (GHG) emissions

* **Gather information from LCD display suppliers on** the performance of abatement systems they have installed using the declaration included in the verification form. :

.

**Required documentation for Assessment and verification**

* Applicant: Declaration included in the **verification form** (sheet: Declarations criteria 2.1-2.2)

**From component suppliers (annex I):**

* Declaration on LCD Display
* **Supporting documentation** e.g. technical dossiers of abatement systems installed by suppliers, most recent annual reports on F-GHG emissions.

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1GThe documentation can also be provided directly to competent bodies by any supplier in the applicant's supply chain.

## Criterion 3. Reparability

|  |
| --- |
| * ‘commercially available tools (i.e. all tools except proprietary tools, e.g. screwdriver, spatula, pliers, or tweezers) * ‘proprietary tools’ are tools that are not available for purchase by the general public or for which any applicable patents are not available to license under fair, reasonable, and non-discriminatory terms; * ‘spare parts’ are all components or assemblies that can potentially fail and/or that are expected to need replacement within the service life of the product. Other parts which have a lifetime usually exceeding the typical life span of the product are not spare parts; |

🛈 *With regards spare parts availability, spare parts shall cover as a minumum:*

*-screen assembly and LED backlight;*

*-stands, and*

*-power and control circuit boards.*

*-****and*** *those included under Annex II (D. Material efficiency requirements. Point 5. A) Availability of spare parts) of Regulation (EU) 2019/2021. Those are:*

*internal power supply, connectors to connect external equipment (cable, antenna, USB, DVD and Blue-Ray), capacitors, batteries and accumulators, DVD/Blue-Ray module if appli­cable, HD/SSD module if applicable, external power supply and remote control.*

**Required documentation for Assessment and verification:**

* Declaration form applicant in the **verification form** (Sheet: Declaration criterion 3)

Additionally, the applicant shall provide the following supporting evidence:

(a) An exploded diagram showing how casing parts, chassis and electric/electronic assemblies are assembled in the product;

(b) A copy of the commercial guarantee;

(c) A copy of the repair manual;

(d) A copy of the user instructions;

(e) A public list of authorised dealers of spare parts.

## Criterion 4. End-of-life

## 4.1. Material selection and information to improve recyclability

This criterion covers the following sub-requirements:

1. Recyclability of plastics.
2. Information to facilitate recycling.
3. Recycled content.

#### (a) Recyclability of plastics:

|  |
| --- |
| * ‘recyclability’ means an ability of a product to be recycled at its end-of-life, based on current practices;; |

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration criteria 4.1-4.2)
* To demonstrate **recyclability** of :

-plastic parts greater than 25grams, (criterion (a) i)

-casings, enclosures and bezels incorporating flame retardants (criterion (a) iv):

The applicant shall demonstrate recyclability by providing evidence that the plastics either individually or combined do not impact the technical properties of the resulting recycled plastics in such a way that they cannot be used again in electronic products. This could include:

* + A declaration from an experienced plastics recycler or permitted treatment operator in accordance with Article 23 of Directive 2008/98/EC of the European Parliament and of the Council ;
  + Test results from an independent laboratory or an experienced plastics recycler;
  + Peer and industry reviewed technical literature applicable to EU.
* Presence of paints and coatings (criterion (a) ii): Test report: ISO 180 (or equivalent).

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G For the purposes of criterion on presence of **paints and coatings**, a significant impact is defined as a >25% reduction in the Notched Izod Impact of a recycled resin as measured using ISO 180 (or equivalent).

|  |
| --- |
| * ‘The Notched Izod Impact test is a single point test that measures a materials resistance to impact from a swinging pendulum. Izod impact is defined as the kinetic energy needed to initiate fracture and continue the fracture until the specimen is broken. The test specimen used in the Notched Izod Impact test are notched to prevent deformation of the specimen upon impact. |

* [*https://www.iso.org/standard/26802.html*](https://www.iso.org/standard/26802.html)

#### (b) Information to facilitate recycling

Plastic parts with a mass greater than 25 grams shall be marked in accordance with ISO 11469 and ISO 1043, sections 1 and 4.

* <https://www.iso.org/standard/27946.html>
* <https://www.iso.org/standard/50590.html>

*https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G Marking exemptions reflected in Annex II of the Commission Regulation (EU) 2019/2021 (Section D, point 2) apply:*

* *Printed circuit boards, Polymethyl Methacrylate Board (PMMA) and display optical plastics forming part of display units;*
* *Where the marking would impact on the performance or functionality of the plastic part;*
* *Where the marking is technically not possible due to the production method; or*
* *Where the marking causes defect rates under quality inspection, leading to an avoidable wastage of materials.*
* *Where parts cannot be marked because there is not enough appropriate surface area available for the marking to be of a legible size to be identified by a recycling operator;*

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration criteria 4.1-4.2)
* Exploded diagram of the electronic display in written or audio-visual format. This shall identify the plastic parts greater than 25 grams by their weight, their polymer composition, and their ISO 11469 and 1043 markings. The dimensions and positions of the marking shall be illustrated and, where exemptions apply, technical justifications provided. (criterion b.1)
* Website where information for waste operators is located. (criterion b.2)

#### (c) Recycled content

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G Products with a metal casing are exempt from this sub-criterion.

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G Recycled cotent shall be measured as a percentage of total plastic (by weight) in the product excluding Printed Wiring Boards.

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1GWhere the recycled content is greater than 25% a declaration may be made in the text box accompanying the Ecolabel (see Criterion 6. 2 (information appearing on the EU Ecolabel). Products with a metal casing are exempt from this sub-criterion.

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration criteria 4.1-4.2)
* Third party verification and traceability for post-consumer recycled content. Certificate of recyclers pursuant to the EuCertPlast certification scheme or equivalent could be used to support verification..

## 4.2.Design for dismantling and recycling

|  |
| --- |
| * ‘dismantling step’ means an operation that finishes with the removal of a part or with a change of tool; |

https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQpSpqhp2CidUtiOO7EUSIBbaqJv_WAMSnHzu7unHz0qqIGoN1G Commercially available tools (i.e. pliers, screw-drivers, cutters and hammers as defined by [ISO 5742](http://www.iso.org/iso/catalogue_detail.htm?csnumber=33638), [ISO 1174](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=53384), [ISO 15601](http://www.iso.org/iso/catalogue_detail.htm?csnumber=28352))

* <https://www.iso.org/standard/33638.html>
* <http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=53384>
* <http://www.iso.org/iso/catalogue_detail.htm?csnumber=28352>

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration criteria 4.1-4.2)
* A test report detailing the dismantling sequence, including a detailed description of the specific dismantling steps, tools and procedures, for the components listed in (a) and the optional component(s) selected from (b).

🛈 *Additional evidence in the form of a video could also be provided to show compliance.*

## Criterion 5. Corporate social responsibility

## 5.1 Labour conditions and human rights during manufacture

Framework for this criterion is based on following guilnes and pronciples:

* [International Labour Organisation’s (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy](http://www.ilo.org/empent/Publications/WCMS_094386/lang--en/index.htm), [the UN Global Compact (Pillar 2)](https://www.unglobalcompact.org/issues/human_rights/the_un_srsg_and_the_un_global_compact.html),
* [UN Guiding Principles on Business and Human Rights](http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf)
* [OECD Guidelines for Multi-National Enterprises](http://www.oecd.org/corporate/mne/),
* The applicable conventions and provisions below shall be respected at the final assembly site for the product.

Table 5. applicable conventions and provisions

| Fundamental conventions of the ILO | |
| --- | --- |
| Child Labour | [Minimum Age Convention, 1973 (No. 138)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312283)  [Worst Forms of Child Labour Convention, 1999 (No. 182)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_ILO_CODE:C182) |
| Forced and Compulsory Labour | [Forced Labour Convention, 1930 (No. 29) and 2014 Protocol to the Forced labour Convention](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:P029)  [Abolition of Forced Labour Convention, 1957 (No. 105)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312250:NO) |
| Freedom of Association and Right to Collective Bargaining | [Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312232)  [Right to Organise and Collective Bargaining Convention, 1949 (No. 98)](http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::no::P12100_Ilo_Code:C098) |
| Discrimination | [Equal Remuneration Convention, 1951 (No. 100)](http://www.ilo.org/dyn/normlex/en/f?p=noRMleXPUB:12100:0::no:12100:P12100_Ilo_Code:C100)  [Discrimination (Employment and Occupation) Convention, 1958 (No. 111)](http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C111) |
| Supplementary provisions | |
| Working Hours | [ILO Hours of Work (Industry) Convention, 1919 (No. 1)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C001) |
| Remuneration | [ILO Minimum Wage Fixing Convention, 1970 (No. 131)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312276:NO)  Living wage: Th*e applicant shall ensure that wages (excluding any taxes, bonuses, allowances, or overtime wages) paid for a normal work week (not exceeding 48 hours) shall be sufficient to afford basic needs (housing, energy, nutrition, clothing, health care, education, potable water, childcare, and transportation) of worker and of a family of four people, and to provide some discretionary income. Implementation should be audited with reference to the* [*SA8000*](http://www.sa-intl.org) *guidance on “Remuneration”* |
| Health & Safety | [ILO Safety in the use of chemicals at work Convention, 1981 (No.170)](http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312315)  [ILO Occupational Safety and Health Convention, 1990 (No.155)](http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_103485.pdf) |

* In locations where the right to freedom of association and collective bargaining are restricted under law, the company:
  + will not restrict workers from developing alternative mechanisms to protect their rights
  + shall recognise legitimate employee associations
* Audit process shall include at least 2 stakeholders from 2 different subgroups:
  + external industry independent organisation stakeholders in local areas around sites (trade unions, community organisations, NGOs and labour experts).
* During the validity period of the EU Ecolabel, the applicant shall publish ONLINE aggregated results from the audits, including:
  + (a) how many and how serious violations of each labour rights and OHS standard;
  + (b) strategy for remediation – where remediation includes prevention per UNGP concept;
  + (c) assessment of root causes of persistent violations resulting from the stakeholder consultation (who was consulted, what issues were raised, how did this influence the corrective action plan).

**Required documentation for verification:**

* Declaration in the **verification form** (sheet: Declaration Criteria 5.1-5.2)
* Copy of the most recent version of their **code of conduct** which must be consistent with the provisions specified above.
* Supporting clousure **audit reports for each final product assembly plant** for the model(s) to be ecolabelled,
  + The audit reports must show: i) findings in detail including the nature and level of evidence for the findings; ii) the name of the auditing organization; iii) the names of the two stakeholders—industry-independent organisations from the local areas around the plant site—who have been consulted; iv) a list of the issues that have been discussed with the stakeholders.
* **web link** to where online publication of the results and findings can be found.

**Suggested additional verification documents**

**Living wage**

* Audit report for each final product assembly plant for the model(s) to be eco-labelled showing that the base wage (without overtime or bonuses) for production workers is a living wage.
* If the applicant cannot submit proof of a living wage, a step-by-step approach is permitted as long as the applicant submits the following verification documents: (i) third party audit within the last 12 months showing compliance with minimum wage laws—all wage issues must be closed; (ii) gap analysis showing the difference between the base wage (without overtime or bonuses) for a production worker and the living wage; (iii) a roadmap to a living wage with a timeline and progress indicators. The roadmap must show how the living wage level will be reached within 18-24 months depending on the size of the facility and the gap between current wages and the living wage.

**Freedom of Association**

* For each final product assembly plant for the model(s) to be eco-labelled, the applicant must provide the name of an independent trade union or other legitimate employee association, or describe committees, such as an occupational health and safety committee, that includes worker representatives, includeing the number of workers (in non-supervisory positions) participating in such committees, how often the committees meet annually, and their main activities.
* Third party site audits shall be carried out by:
  + auditors qualified to assess the compliance of the industry manufacturing sites with social standards or codes of conduct or,
  + in countries where ILO Labour Inspection Convention, 1947 (No 81) has been ratified and the scope of the inspection system covers the areas listed above , by labour inspector(s) appointed by a public authority.
* Valid certifications from third party schemes or inspection processes that, together or in part, audit compliance with the applicable principles, shall be accepted. Only for the principles/conventions covered by the third party scheme.These certifications shall be not more than 12 months old.
* Certifications from third party schemes that covers partially the criteria could be used to demonstrate the the compliance of specific requirement/aspect(s) of this criteria. The certification shall be accompanied of documentation that clearly indicates the aspect(s) and the scheme provision which is in line with the EU Ecolabel requirement/aspect.

## 5.2. Sourcing of 'conflict-free' minerals

Relevant links:

* [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](http://www.oecd.org/corporate/mne/mining.htm),

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration Criteria 5.1-5.2)
* A report describing company due diligence activities **(covering all details/steps defined by the Guidance**) along the supply chain for tin, tantalum, tungsten and their ores and gold. Supporting documents such as certifications of conformity issued by the European Union's scheme shall also be accepted.
* Identification of component(s) which contain the identified minerals, and their supplier(s), as well as the supply chain system or project used for responsible sourcing. The suppliers of components should be distinguished from the supplier of minerals and both should be provided.
* The 5-step due diligence process of the Guidance

1. Establish strong company management systems.
2. Identify and assess risks in the supply chain.
3. Design and implement a strategy to respond to identified risks.
4. Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain.
5. Report on supply chain due diligence.

## Criterion 6. Information appearing on the EU Ecolabel

## 6.1. User instructions

**Required documentation for Assessment and verification:**

* Declaration in the **verification form** (sheet: Declaration Criteria 6.1-6.2)
* A link to the online-version or a copy of the user instructions / repair manual

## 6.2. Information appearing on the EU Ecolabel

🛈 *The guidelines for the use of the optional label with text box can be found in the "Guidelines for use of the Ecolabel logo" on the website:*

[*http://ec.europa.eu/environment/ecolabel/documents/logo\_guidelines.pdf*](http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf)

**Required documentation for Assessment and verification: Information appearing on the EU Ecolabel**

* Declaration in the **verification form** (sheet: Declaration Criteria 6.1-6.2)
* High resolution image/artwork of the product packaging that clearly shows the label, the registration/licence number and, where relevant, the statements that can be displayed together with the label.

1. This User Manual is for guidance only; it does not have any legal standing and does not, in any way, replace the Commission Decision or any relevant legislation. In case of doubt on specific points in the Manual, please refer directly to the national Competent Body. [↑](#footnote-ref-1)