

***APPLICATION PACK FOR
THE ECOLABEL***



Application form and guidance document for light sources

Version 1.0 14th December 2011

Commission Decision of 6 June 2011 on establishing the ecological criteria for the award of the EU Ecolabel for light sources

(Insert name of Competent Body and contact details, including address, telephone and fax numbers and email address)

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Introduction

The Flower – the European Ecolabel – is the premier European award for products meeting higher environmental standards.



The purpose of this User's Manual is to describe the requirements in form of data and documentation that the applicant has to compile in order to apply for the EU Ecolabel for light sources. In addition, this manual describes the requirements for demonstrating continued compliance once the label has been granted.

The basis for the manual is Commissions Decision of 6 June 2011 of establishing the ecological criteria for the award of the Community eco-label for light sources (2011/331/EU).

General information

To obtain the Ecolabel for Light sources, products must comply with the product group definition and the technical criteria set out in the formal European Commission Decision of 6 June 2011 (2011/331/EU), which appears at on the Commission's website. The application form contained in this User Manual must be completed and submitted to the Competent Body. The applicant must compile documentation for all relevant criteria for the product(s). Two different types of declarations are often used: from the applicant/manufacture and declarations from the supplier. All information supplied for the Competent Body is treated as strictly confidential.

The Ecolabel criteria aim at promoting reduction of environmental damage or risks related to the use of energy (global warming, acidification, depletion of non-renewable energy sources) by reducing energy consumption, reduction of environmental damage related to the use of natural resources and reduction of environmental damage related to the use of hazardous substances by reducing the use of such substances. The criteria will be valid for 3 years from the date of adoption of Commission decision (2011/331/EC).

The application form should be used in conjunction with the separate Guidance Note¹, which provides all the necessary information about the scheme, and explains how the Ecolabel application should be assembled and which Competent Body to apply to. (If you intend to apply to a different Competent Body, please use their application form.)

Application forms for the European Ecolabel shall be provided in two copies bearing original signatures. The application form will be provided by any of the Competent Bodies responsible for the European Scheme. For any information, please get in contact whit the Ecolabel Helpdesk (Ecolabel@biois.com).

¹ http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/pdf/appack_part1.pdf

For which products can applications be made?

The product group 'light sources' can apply for the EU Ecolabel. The product group shall comprise devices which have the following characteristics:

- The product group 'light sources' shall comprise all light sources of a luminous flux ≥ 60 and $\leq 12\ 000$ lumens for general lighting applications with direct or indirect connection to the public electricity supply equipped with a lamp cap listed in EN 60061 and made in order to produce a visible radiation.
- The following types of light sources are not included in the product group: directional lamps, high-intensity discharge lamps, coloured lamps, projector lamps, photographic lighting, solarium tubes, battery driven systems and other light sources that are not intended for general lighting applications. The following types of light sources are not included in the product group if they are not supplied directly from the mains: integral compact fluorescent lamps, filament lamps, LED lamps.

Who can apply for EU Ecolabel?

Manufacturers, importers, services providers, traders and retailers, may submit applications for the Ecolabel. Traders and retailers may submit applications in respect of products placed on the trade market under their own brand names.

If a product is being sold in a single Member State the application shall be presented in this Member State. If a product is being sold in the same form in several Member States the application may be presented in any of these Member States.

If a product originates from outside the Community the application may be presented in any of the Member States in which the product is to be, or has been, placed on the market.

What does an application/contract cover?

At application the applicant must report the trade names and identification or reference numbers of the products in question. All chemicals used for the Ecolabelled product must be reported in the application. When the application has been processed and approved by the Competent Body a certificate is sent to the company referring to the company, to the range of products and to the different trade names of the products certified. In the case when there are other demands and other products certified in the same product group an extra certificate is sent. With the certificate a contract specifying the reference of the decision for product group must be signed by the company and by the competent body. In case the contract holder wants to extend his range of products the following conditions apply:

Extension with new identification/reference commercial names, which do not affect the criteria, can be done by sending specific information to the Competent Body. In this case a letter of prolongation is sent to the competent body with the new trademark and the name of the product which has been

certified before with the same characteristics. After validation of the new environmental labelling, a certificate with the new commercial reference is sent.

Extension with new technical characteristics (for example modified product formulation, new product formulations added or other changes with influence on the Ecolabel criteria): An application form must be approved by the Competent Body specifying the relevant changes and the extensions must be approved by the Competent Body prior to use/marketing. If new trade names apply, the Competent Body will forward and updated appendix to the contract specifying the new trade names added.

Extension with new suppliers can be done by providing the Competent Body with documentation for the suppliers' compliance with the criteria. Besides, an updated list of suppliers must be provided.

Choice of analytic laboratory

In the criteria document, the Assessment and verification requirement says: "Where possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent". There is a need for a common practice on how this shall be interpreted, and this document describes a hierarchy of situations and conditions for acceptance of a laboratory.

The national competent body or eco-labelling board will consider the applications individually taking into account the following approach and making a decision according to the concrete situation without prejudice to the credibility of the European eco-labelling scheme.

(1) Laboratory tests shall be performed by laboratories that are accredited for the specified test method according to ISO 17025 or GLP, where possible. The Competent Bodies accept all accredited laboratories in all Member States in the EU/EEA and in countries that have signed the mutual recognition agreement according to ILAC, the international accreditation organisation. If in the Member State where the applicant submits its dossier or where the company or the concerned production plant or service is based, one or more laboratories are accredited according to ISO 17025 or GLP, applicants shall use such a laboratory, either in that Member State or another.

(2) Laboratories with an accreditation for other tests than those required by the criteria can be accepted if they submit a declaration that the tests are done following the same quality management procedures as the tests for which they obtained an accreditation. In case of doubt, the competent body or national board shall inspect the lab that carries out the tests or shall select an accredited auditor who will be charged to do so.

(3) If neither point 1 or 2 is possible, applicants should call on a non-accredited independent laboratory certified or approved by a Government Department or other public body in a Member State. In case of doubt, the competent body or national board shall inspect the lab that carries out the tests or shall select an accredited auditor who will be charged to do so.

(4) If none of points 1 - 3 are possible, applicants may have the tests performed by an independent laboratory that is neither accredited nor approved by authorities according to point 3. Laboratories with a quality management system shall be preferred. A laboratory situated in an organisation holding an ISO 9001- certificate, may be accepted if the scope of the certification includes the laboratory. The competent body or national board shall verify the competence of the laboratory that carries out the tests or shall select an accredited auditor who will be charged to do so.

(5) If none of the above mentioned points can be fulfilled, the applicant may have the tests carried out in a company laboratory (that is not accredited ISO 17025 or GLP, as this would be covered by point (1)). The competent body or national board shall ensure that the tests are properly carried out or shall select an accredited auditor who will be charged to do so. In this case, the laboratory shall have a quality management system. A laboratory within an organisation holding an ISO 9001- certificate is accepted as being under appropriate quality management, if the scope of the certification includes the laboratory. This option may also be used for continuous monitoring of the production, including discharges and emissions, and for testing fitness for use when no standard test method exists.

Test period and test frequency

Test results/test reports will be required by the Competent Body upon application. It is the responsibility of the contract holder that the products are in continuous compliance with the Ecolabel criteria.

Once the products covered by the Ecolabel application have been awarded the Ecolabel, random tests (e.g. fitness for use) can be realized during the validity period of the Ecolabel by the Competent Body in order to check whether the products still comply with the Ecolabel criteria.

Continuous control – the responsibility of the applicant

After an Ecolabel has been granted the applicant must keep the dossier up to date. In case where continued tests or measurements are performed/required (e.g. in case of changes of the product formulation or for support of new product claims), the contract holder or the supplier is responsible for keeping a journal of the test results and the associated documentation. This documentation must be available at all times to the Competent Body if considered to be of influence on the continued compliance with the Ecolabel criteria. In case data shows that the product during the validity period no longer complies with the criteria this must be reported to the Competent Body immediately together with a statement for the non-compliance. The Competent Body will in each individual case decide the consequences of the non-compliance (e.g. demand for further testing, suspension of the label etc.).

Control of compliance with the criteria

The Competent Body may undertake all or any necessary investigations to monitor the ongoing compliance by the contract holder – both with the specific Ecolabel criteria for the product group and the terms of use and provisions of the contract. For this purpose the Competent Body may request any relevant documentation to prove such compliance. The contract holder is obliged to provide this documentation. Furthermore the Competent Body may at any reasonable time and without notice request and be granted access to the premises.

Costs

[the Competent Bodies are at all times responsible for inserting the correct economic figures applicable for the Member State]

Application fee	Amount (2011 figures)
Application fee, first application	1200 €
Application fee, first application, for SME's and	600 €

applicants from developing countries ¹⁾	
Application fee, first application, for micro-enterprises ²⁾	350 €
Application fee, renewal ³⁾	600 €
Application fee, renewal, for SME's and applicants from developing countries ^{1,3)}	300 €
Application fee, renewal, for micro-enterprises ^{2,3)}	200 €
Fee for extension of a license	Spent working hours (fixed unit price per hour), max 1200/600/350 € (not exceeding the application fee).

¹⁾ SME's (Small and Medium-sized Enterprises): More than 10 but less than 250 employees and a yearly turnover equal to or less than 50 mio. € (according to Commission recommendation 2003/361/EC of May 6, 2003)

²⁾ Micro-enterprise: Less than 10 employees and a yearly turnover equal to or less than 2 mio. € (according to Commission recommendation 2003/361/EC of May 6, 2003)

³⁾ If application for renewal of a license is sent in after the license has expired a normal application fee corresponding to 1200/600/,50 € will apply

In addition, if the enterprise is either EMAS or ISO 14001 certified, an additional 20% discount on the application fee is given provided that the requirements to the Ecolabel are incorporated in the certification.

Annual Fee	Amount
Annual fee	1500 €
Annual fee for SME	750 €
Annual fee for micro-enterprises	350 €

Transition period for existing Eco labelled products

A transitional period should be allowed for producers whose products have been awarded the Ecolabel for light sources on the basis of the criteria set out in Decision 2002/747/EC, so that they have sufficient time to adapt their products to comply with the revised criteria and requirements. Producers should also be allowed to submit applications based on the criteria set out in Decision 2002/747/EC or on the criteria set out in this Decision until the lapse of validity of that Decision.

The application process

When ready to apply the applicant will have to fill in an application form which is found in this User's Manual. The application form must be send together with the relevant documentation to the Competent Body.

After receiving an application the Competent Body examines the documentation material including the possible material sent directly from the suppliers. The Competent Body can ask for further information, if necessary. The case officer at the Competent Body makes a status of any additional documentation required in order to comply with the Ecolabel criteria, if any. This status is forwarded to the applicant who will have to ensure that the relevant documentation is forwarded.

After all documentation has been approved the Competent Body may carry out an on-site visit to the applicant and/or his suppliers. The Competent Body judges from case to case whom to visit. When all requirements have been met, the Competent Body notifies the application in the European Commission who registers the contract.

When criteria documents are revised, the license holders will have to apply for re-assessment of their license according to the revised criteria. A transition period for adjusting the products and apply for re-assessment will apply. This will be announced by the European Commission.

Definitions and descriptions of terms used in this User Manual

'Lamp' means a source made in order to produce an optical radiation, usually visible, including any additional components necessary for starting, power supply or stable operation of the lamp or for the distribution, filtering or transformation of the optical radiation, in case those components cannot be removed without permanently damaging the unit (*Reference: Commission Regulation 244/2009*)

'Single ended light bulbs', meaning all light bulbs which provide general purpose lighting and have single-ended bayonet, screw or pin fittings. The light bulbs must be connectable to the public electricity supply, and must be available for sale to the public (*Reference: User Manual for light bulbs, part 2*)

'Double-ended light bulbs', meaning all light bulbs which provide general purpose lighting, and have fittings at both ends. This includes, principally, all linear fluorescent tubes. The light bulbs must be connectable to the public electricity supply (*Reference: User Manual for light bulbs, part 2*)

'Directional lamp' means a lamp having at least 80 % light output within a solid angle of π sr (corresponding to a cone with angle of 120°) (*Reference: Commission Regulation 244/2009*)

'Non-directional lamp' means a lamp that is not a directional lamp (*Reference: Commission Regulation 244/2009*)

'Discharge lamp' means a lamp in which the light is produced, directly or indirectly, by an electric discharge through a gas, a metal vapour or a mixture of several gases and vapours (*Reference: Commission Regulation 244/2009*)

'Fluorescent lamp' means a discharge lamp of the low pressure mercury type in which most of the light is emitted by one or several layers of phosphors excited by the ultraviolet radiation from the discharge. Fluorescent lamps are supplied either with or without integrated ballasts (*Reference: Commission Regulation 244/2009*)

'Power supply' means a device which is designed to convert alternating current (AC) power input from the mains power source input into direct current (DC) or another AC output (*Reference: Commission Regulation 244/2009*)

'Compact fluorescent lamp' (CFLs) means a unit which cannot be dismantled without being permanently damaged, provided with a lamp cap and incorporating a fluorescent lamp and any additional components necessary for starting and stable operation of the lamp (*Reference: Commission Regulation 244/2009*)

'Light emitting diode' or 'LED' means a solid state device embodying a p-n junction, emitting optical radiation when excited by an electric current (*Reference: Commission Regulation 244/2009*)

'LED lamp' means a lamp incorporating one or several LED (*Reference: Commission Regulation 244/2009*)

'Switching cycle' is the sequence of switching on and switching off the lamp with defined intervals (Reference: Commission Regulation 244/2009)

'Lamp cap' means that part of a lamp which provides connection to the electrical supply by means of a socket or lamp connector and, in most cases, also serves to retain the lamp in the socket (Reference: Commission Regulation 244/2009)

'Lamp lumen maintenance factor' (LLMF), which is the ratio of the luminous flux emitted by the lamp at a given time in its life to the initial (100 hour) luminous flux (Reference: Commission Regulation 244/2009)

'Lamp average lifetime', number of operating hours after which 50 % of a representative group of lamps have survived, when operating under specified test conditions (life to 50 % lamp failure). (Reference: EN 50285:1999)

'Luminous flux' (Φ), which is a quantity derived from radiant flux (radiant power) by evaluating the radiation according to the spectral sensitivity of the human eye, measured after 100 hours of lamp running time (Reference: Commission Regulation 244/2009)

'Correlated colour temperature' (T_c [K]), which is temperature of a Planckian (black body) radiator whose perceived colour most closely resembles that of a given stimulus at the same brightness and under specified viewing conditions (Reference: Commission Regulation 244/2009)

'Colour rendering' (R_a), which is the effect of an illuminant on the colour appearance of objects by conscious or subconscious comparison with their colour appearance under a reference illuminant (Reference: Commission Regulation 244/2009)

'Luminance', which is the amount of light, per unit of apparent surface, that is emitted by or reflected by a particular area within a given solid angle (unit: cd/m^2) (Reference: Commission Regulation 244/2009)

'Ballast' means a device which serves to limit the current of the lamp(s) to the required value in case it is connected between the supply and one or more discharge lamps. It may also include means for transforming the supply voltage, dimming the lamp, correcting the power factor and, either alone or in combination with a starting device, providing the necessary conditions for starting the lamp(s). It can be integrated or external to the lamp (Reference: Commission Regulation 244/2009)

'Premature failure' is when a lamp reaches its end of life after a period in operation which is less than the rated life time stated in the technical documentation (Reference: Commission Regulation 244/2009)

Application for the EU Ecolabel for Light sources

The Guidance Note² describes the Eco label application process and the process of assessment to ensure that the product complies with the criteria. Compliance is shown by a mixture of tests and applicant's declarations, as indicated in Section 2 of this Form.

Applicants should complete Sections 1 and 2 of this Application Form (in black, either typescript or manuscript) and submit two signed paper copies - not e-mails - to the Competent Body at the address on the cover of this Form.

Applicants should also provide a Dossier of laboratory test reports, sign it, and send this in duplicate to the Competent Body, and keep an up-to-date copy on their premises to show continuing compliance with the criteria. If possible, the Dossier should include an illustration of how applicants intend to use the Eco label on the product and packaging, so that the Competent Body can satisfy itself that the label will be properly used - alternatively, you may prefer to clear the design with us once the licence has been awarded.

Section 1 – details of applicant and product

Please complete in black, and submit two paper copies (not by e-mail) to the Competent Body	For official use
A. The Applicant	
Full name of applicant company:	
Address (this should be the address for correspondence about the application, and the address to which invoices for fees should be sent – if these addresses are not the same, please give both: if you want us to use a different address in the contract – such as your company's head office – please give that too):	

² http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/pdf/apppack_part1.pdf

Contact name, and function:	
Tel no, and fax no:	
E-mail:	
Website:	
In what capacity are you applying for the Eco label? (manufacturer, importer, service provider, trader or retailer)	
B. The Product	
Registered trade name(s) of product or product range, and any trademarks:	
Model names (or internal reference numbers):	
<p>Please describe the type of product [including the category within the product group if relevant]</p> <p>If you are applying for the label for a range of products, please give details of the range:</p> <p>Please summarise the main characteristics and composition:</p>	
Name and address of manufacturing site (if different from correspondence address above):	
Is this product manufactured in the same form in other countries? If	

<p>so, please give addresses of all manufacturing sites:</p>	
<p>If the product is made outside the EU, please confirm that it has been or will be placed on the market in the EU country to which this application is being made, as this is a condition of applying:</p>	
<p>Other EU countries in which this product is sold (if sold under different names, please give names):</p>	
<p>Approximate estimate of annual number of articles produced (as sold in stores – so if normally sold in packs consisting of several items, the pack is one article)</p>	
<p>If available: approximate estimated volume of annual sales, excluding VAT, in the European Economic Area (i.e. the European Community plus Norway, Iceland and Liechtenstein) of the product at ex-factory prices in [insert relevant currency] (i.e. before transport to the purchaser's premises or there is a wholesaler's or retailer's profit – so excluding the cost of carriage, carriage insurance, and settlement discounts, but including any bulk discount (which is where the customer is offered a percentage reduction in the total price when ordering large quantities of goods):</p>	
<p>C. This Application</p>	
<p>Is this the first application for the EU Eco label for this product? (if not, when and where was the first application made, and with what outcome?)</p>	
<p>If so, how did you first hear about the label?</p>	

<p>Is this an application to add a new product (that is, with a technical formulation not covered by an existing Eco label that you hold) to a licence for a product range already covered by an Eco label? (if so, please give details of the existing Eco label)</p>	
<p>Please name any other environmental labelling schemes under which the product has already been registered, such as the Nordic Swan:</p>	
<p>Please give the name and address of the test centre you have used (for criteria where independent validation is required):</p>	
<p>Does this test centre meet the general requirements of standard EN ISO 17025?</p>	
<p>The Competent Body will invoice applicants for a non-returnable application fee on receipt of the application and will apply all relevant reductions. If the application is successful, the Competent Body will invoice the licensee for an annual fee, as explained in the Guidance Note³.</p> <p>1. Do you wish to claim a fee reduction as an SME?</p> <p>If so, does your company employ fewer than 250 people and have an annual turnover not exceeding 50 million euro, and / or an annual balance sheet total not exceeding 43 million euro? (<i>these are the qualifying criteria</i>)</p> <p>2. Do you wish to claim a fee reduction for EMAS registration or ISO certification? If so, please provide proof of status.</p> <p>3. Where the product uses components for which an Eco label fee has already been paid, the annual fee will be based on the annual sales of the products after deduction of the cost value of the components. Do you wish to claim a reduction on these grounds? Please provide details if relevant.</p>	

³ http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/pdf/appack_part1.pdf

D. Applicant's undertaking regarding use of the European Eco label

(all applicants must sign and date this undertaking)

As the applicant for an EU Eco label, I hereby declare that:

- I understand and accept the provisions of Regulation EC No 66 / 2010 on the EU Eco label scheme, and in particular Article 2, which states that the Eco label may not be awarded to goods manufactured by processes which are likely to significantly harm man and / or the environment, or which in their normal application could be harmful to the consumer;
- I understand and accept the standard assessment and contract procedures proposed by the Eco labelling Competent Body, and accept its terms during the duration of the contract;
- I undertake to ensure that the product complies with the Eco label criteria at all times and to notify the Eco labelling Competent Body immediately of any significant modification to it or to the production processes;
- I take responsibility for the correct and proper use of the EU Eco label.

Signed:

Name in capitals:

Position in company:

Date:

Section 2 – Criteria verification

Please complete or type in black and submit in duplicate as a paper copy (not by e-mail) to the Competent Body. Using the spaces in the following tables, please indicate if the product meets each criterion, and confirm where required that a report or other information (as specified) is enclosed showing that the product complies with the criterion.

This is a summary of those criteria that require test reports, and those for which an applicant's declaration is acceptable:

	Test report	Declaration
Energy efficiency	X	
Lifetime	X	
Lumen maintenance	X	
Mercury content	X	
Switch on/off	X	
Colour rendering index	X	
Colour consistency	X	
Hazardous substances and mixtures		X
Plastic Parts		X
Packaging		X
User Instructions		X
Social Accountability		X
Information appearing on the Ecolabel		X

The specific assessment and verification requirements are indicated within each criterion. Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, it is understood that these may originate from the applicant and/or his supplier(s) and/or their supplier(s), etc, as appropriate. Supporting documentation such as test reports must be collated in the Dossier accompanying the application.

Where appropriate, test methods other than those indicated for each criterion may be used if their equivalence is accepted by the Competent Body assessing the application.

Where no specific requirements about the test method are stated, the Competent Body expects applicants to make what they regard as reasonable tests, and to keep the reports on these tests on the Dossier in case they are required. In cases of doubt, applicants are advised to check with their chosen test centre that it is content with the test method used.

Where appropriate, Competent Bodies may require supporting documentation and may carry out independent verifications.

Criterion 1: Energy efficiency, lifetime, lumen maintenance and mercury content

1.1 Energy Efficiency

Requirement	Yes	No
Single and double ended light sources shall have an energy efficiency of at least 10 % better than class A as defined in annex IV of Commission Directive 98/11/EC of 27 January 1998 when measured using the test procedure referred to in EN 50285 for light sources other than LEDs.		
Report provided to the Competent Body stating that the energy efficiency is at least 10 % better than class A as defined in annex IV of Commission Directive 98/11/EC of 27 January 1998. For light sources other than LEDs, test procedure in EN 50285 shall be used. For LED light sources, a test report using reliable, accurate and reproducible measurement procedures, which takes into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		

The Energy efficiency class of light sources is expressed on the scale of A (most efficient) to G (least efficient). Only light sources with energy efficiency at least 10 % better of class A can be awarded for Ecolabel.

Further information on calculations for energy efficiency for light sources is displayed in Annex I and Annex II.

1.2 Lifetime

1.2.1 Single ended Light Sources

Requirement	Yes	No
The light source has a lifetime of over 15,000 hours when measured using the test procedure referred to in EN 50285 for light sources other than LEDs. For LEDs see below.		
Report provided to the Competent Body stating that the lifetime, measured using the procedure in EN 50285 (for light sources other than LEDs), of over 15,000 hours. For LED light sources, a test report using reliable, accurate and reproducible measurement procedures, which takes into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		

1.2.2 Double ended light sources

Requirement	Yes	No
The light source has a lifetime of over 20,000 hours when measured using the test procedure referred to in EN 50285 (for light sources other than LEDs). For LEDs see below.		
Report provided to the Competent Body stating that the lifetime, measured using the procedure in EN 50285(for light sources other than LEDS), is over 20,000 hours For LED light sources, a test report using reliable, accurate and reproducible measurement procedures, which takes into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		

1.3. Lumen maintenance

1.3.1 Single ended light sources

Requirement	Yes	No
The light source has lumen maintenance of over 80% at 9,000 hours life when measured using the test procedure referred to in EN 50285 (for light sources other than LEDS). For LEDs see below.		
Report provided to the Competent Body stating that the lumen maintenance, measured using the procedure in EN 50285(for light sources other than LEDS), is over 80% at a life of 9,000 hours For LED light sources, a test report using reliable, accurate and reproducible measurement procedures, which takes into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		

1.3.2 Double ended light sources

Requirement	Yes	No
The light source has lumen maintenance of over 90% at 16,000 hours life when measured using the test procedure referred to in EN 50285 (for light sources other than LEDS). For LEDs see below.		
Report provided to the Competent Body stating that the lumen maintenance, measured using the procedure in EN 50285 (for light sources other than LEDS) is over 90% at a life of 16,000 hours For LED light sources, a test report using reliable, accurate and reproducible measurement procedures, which takes into account the generally recognised state of the art measurement methods, including methods set out in		

documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		
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1.4. Mercury content

Requirement	Yes	No
The mercury content shall be less than 1.5 mg for single-ended and less than 3.0 mg for double-ended light sources.		
Test reports using reliable, accurate and reproducible measurement procedures, which take into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union		

For the report, stating mercury content of fluorescent light sources, the applicant the method described below may be used. Alternative methods may also be used.

The report shall state the average mercury content, calculated by analysing ten lamps, and then deleting the highest and lowest values before calculating the arithmetic mean of the remaining eight values.

The method for testing the mercury content may be conducted as follows. The arc tube is first separated from its plastic surrounds and associated electronics. The associated lead wires are cut as close to the glass seal as possible. The arc tube is taken to a fume cupboard and is cut into segments. The segments are placed in a suitably sized robust screw-capped plastic bottle to which is added a 1 inch diameter porcelain ball and 25 ml of high purity concentrated nitric acid (70 %). The bottle is sealed and shaken for a few minutes to reduce the arc tube to fine particle size, the stopper is periodically loosened to eliminate any possibility of pressure build-up. The contents of the bottle are allowed to react for 30 minutes during which time the contents are periodically agitated. The contents of the bottle are then filtered through an acid resistant filter paper and collected in a 100 ml graduated volumetric flask. Potassium dichromate is then added to the flask so that the final concentration is 1 000 ppm with respect to chromium. The flask is then made up to volume with pure water. Matched standards are made up on a concentration range up to 200 ppm mercury. The solutions are analysed using flame atomic absorption at a wavelength of 253,7 nm with background correction on. From the results obtained and knowledge of the solution volume, the original mercury content of the light bulb can be computed. The competent body may agree adaptations to the details of this test method if they are necessary for technical reasons, and these shall be applied in a consistent manner.

Criterion 2: Switch on/off

Requirement	Yes	No
For compact fluorescent lamps (CFLs) and LEDs, the number of switch on/off cycles that the light source can withstand before premature failure shall be greater than the lamp life time expressed in hours.		
For lamps claiming to withstand frequent switching, this number shall be higher than 60,000 switch on/off cycles.		

<p>Report provided to the Competent Body stating that the product meets the criterion requirements.</p> <p>Method:</p> <p>For CFLs a rapid cycle test (1 minute on, 3 minutes off) and the test procedures referred to in EN 50285, when 50% of the light bulbs tested meet the requirements for lamp lifetime referred to in EN 50285</p> <p>For LEDs, a test using reliable, accurate and reproducible measurement procedures, which take into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the Official Journal of the European Union</p>		
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Criterion 3: Colour rendering index

Requirement	Yes	No
The colour rendering (Ra) index of the light source shall be greater than 85.		
Test report shall be provided, stating that the colour rendering index of the light source has been determined using the test procedure referred to International Commission on Illumination document CIE 13.3.:1995 "Method of Measuring and Specifying Colour Rendering Properties of Light Sources". The report shall state the colour rendering index of the light source.		

Criterion 4: Colour consistency

Requirement	Yes	No
The light source shall have a Correlated Colour Temperature (CCT) spread within a 3-step MacAdam ellipse or better.		
Test report shall be provided, stating that the correlated colour temperature (CCT) spread is within a 3-step MacAdam ellipse or better using reliable, accurate and reproducible measurement procedures, which take into account the generally recognised state of the art measurement methods, including methods set out in documents the reference numbers of which have been published for that purpose in the <i>Official Journal of the European Union</i> .		

Criterion 5: Hazardous substances and mixtures

Requirement	Yes	No
In accordance with Article 6(6) of Regulation (EC) No 66/2010 the product or any part of it shall not contain substances referred to in Article 57 of Regulation (EC) No 1907/2006 nor substances or mixtures meeting the criteria for classification in the following hazard classes or categories in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council.		

List of hazard statements and risk phrases:

<i>Hazard Statement*</i>	<i>Risk Phrase**</i>
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25
H304 May be fatal if swallowed and enters airways	R65
H310 Fatal in contact with skin	R27
H311 Toxic in contact with skin	R24
H330 Fatal if inhaled	R23/26
H331 Toxic if inhaled	R23
H340 May cause genetic defects	R46
H341 Suspected of causing genetic defects	R68
H350 May cause cancer	R45
H350i May cause cancer by inhalation	R49
H351 Suspected of causing cancer	R40
H360F May damage fertility	R60
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60/61/60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60/63
H360Df May damage the unborn child. Suspected of damaging fertility	R61/62
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child	R62-63
H362 May cause harm to breast fed children	R64
H370 Causes damage to organs	R39/23/24/25/26/27/28
H371 May cause damage to organs	R68/20/21/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting	R52-53

effects	
H413 May cause long-lasting effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
<i>*As provided for in Regulation (EC) No 1272/2008.</i>	<i>**As provided for in Council Directive 67/548/EEC (OJ 196, 16.8.1967, p. 1).</i>

<p>The use of substances or mixtures which change their properties upon processing (e.g. become no longer bio available, undergo chemical modification) so that the identified hazard no longer applies is exempted from the above requirement.</p> <p>Concentration limits for substances or mixtures meeting the criteria for classification in the hazard classes or categories listed in the table above, and for substances meeting the criteria of Article 57(a), (b) or (c) of Regulation (EC) No 1907/2006, shall not exceed the generic or specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008. Where specific concentration limits are determined, they should prevail over the generic ones.</p> <p>Concentration limits for substances meeting criteria of Article 57(d), (e) or (f) of Regulation (EC) No 1907/2006 shall not exceed 0,1 % weight by weight.</p> <p>The following substances/uses of substances are specifically derogated from this requirement:</p> <ul style="list-style-type: none"> • Homogenous parts* with weight below 5 g – all hazard statements and risk phrases listed above 		
<p>A certificate signed by the appliance manufacturer declaring compliance with these requirements is provided.</p> <p>A declaration of compliance signed by the plastic and flame retardant suppliers is provided.</p> <p>Copies of relevant safety data sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for substances or mixtures are provided.</p> <p>Concentration limits shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006 for substances and mixtures.</p>		

**Note: 'homogeneous part' means one material of uniform composition throughout or a material, consisting of a combination of materials, that cannot be disjointed or separated into different*

materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes (European Commission Directive 2011/65/EU, Article 3).

Criterion 6: Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006

No derogation from the exclusion in Article 6(6) may be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006, present in mixtures, in an article or in any homogenous part of a complex article in concentrations higher than 0,1 %. Specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall apply in case it is lower than 0,1 %.

The "harmonised" Specific Concentration Limits (SCL) determined in accordance with Article 10 of Regulation (EC) No 1272/2008 are the ones listed in annex VI of this regulation (available at: http://ec.europa.eu/enterprise/sectors/chemicals/documents/classification/index_en.htm).

In addition, Article 10 of of Regulation (EC) No 1272/2008 gives the possibility to supplier to determine, when not available in Annex VI, their own SCL, called "non harmonised" SCL. The ECHA (European Chemical Agency) will soon s make publicly available all "harmonised" and "non harmonised" classification and their corresponding SCL.

Assessment and verification: the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Reference to the list shall be made on the date of application. The applicant shall provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the suppliers of substances and copies of relevant Safety Data Sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for substances or mixtures. Concentration limits shall be specified in the Safety Data Sheets in accordance with Article 31 of Regulation (EC) No 1907/2006 for substances and mixtures.

Criterion 7: Plastic parts

Requirement	Yes	No
If any plasticizer substance in the manufacturing process is applied, it must comply with the requirements on hazardous substances set out in Criteria 5 and 6. Additionally, DNOP (di-n-octyl phthalate), DINP (di-isononyl phthalate) and DIDP (di-isodecyl phthalate) shall not intentionally be added to the product.		
Plastic parts shall not contain a chlorine content greater than 50% by weight..		
A certificate signed by the manufacturer declaring compliance with these requirements.		
A declaration of compliance signed by the plastic suppliers and copies of relevant safety data sheets about materials and substances.		

Criterion 8: Packaging

Requirement	Yes	No
Laminates and composite plastics shall not be used.		
Where cardboard boxes are used, they shall be made of 80 % recycled material.		
Where plastic materials are used they shall be made of at least 50% recycled material.		
A signed declaration that their packaging complies with these requirements is provided. Only primary packaging, as defined in European Parliament and Council Directive 94/62/EC, is subject to the criterion. A sample of the product packaging is provided.		

Criterion 9: User Instructions

Requirement	Yes	No
The product shall be sold with relevant user information either on the packaging or in a separate leaflet sold with the product, providing advice on its proper environmental use. In particular:		
(a) For lamps having E27, E14, B22 or B15 caps, the relative size and shape of the light source compared to a conventional incandescent lamp shall be indicated on the packaging.		
(b) For double-ended light bulbs: information on the packaging shall indicate that the environmental performance of the light bulb is improved when it is used with high frequency electronic control equipment.		
(c) Clean-up guidelines for a broken fluorescent light source listed on the packaging		
(d) The proper maintenance of lamps, such as cleaning, to maintain lumen output.		
(e) Turning off lights saves energy and money		
A signed declaration that their product complies with these requirements is provided. A copy of the packaging or leaflet is provided.		

Criterion 10: Social Accountability

Requirement	Yes	No
Fundamental principles and rights regarding working conditions must be fulfilled during the production of the Ecolabelled light source. The licensee must ensure that the production of the light source follows the ILO conventions regarding child labour, forced labour, health and safety, discrimination, discipline, hours of work, wages, freedom of association and collective bargaining.		
A declaration from the applicant that the requirement is fulfilled is provided. Additionally, a specification of contracts with inspection authorities and code of conduct regarding ILO conventions or SA8000 certification.		

Criterion 11: Information appearing on the Ecolabel

Requirement	Yes	No
Optional label with text box shall the following text:		
High energy efficiency – saves money		
Long life time		
Performance tested		
If the light source does not contain mercury, the optional label may state that the light source does not contain mercury.		
A sample of the label, together with a declaration of compliance with this criterion is provided.		

Statement that the product meets Eco label criteria

Applicant's undertaking regarding compliance with the criteria for the European Eco label

As an applicant for the EU Eco label, I hereby declare that:

- the product complies with **the product group definition** stated in this form and meets **all the criteria which are required** for this product to be awarded an Eco label;
- this application includes two copies of a Dossier which contains the following information:
 - test report(s), where required by the criteria above, showing compliance of the product with each test requirement: **all test results and data provided with this application relate to the product as it will be formulated for the duration of the period that the product carries the label;**
 - information showing that any necessary verifications have been conducted in a laboratory which meets the general requirements of standard EN ISO 17025;
 - adequate information for the Competent Body to satisfy itself that the product meets all criteria where the applicant has declared compliance with the criteria;
 - an illustration of the proposed usage of the Eco label on the product and packaging, and information on how the user will be made aware that the product has been awarded the Eco label (alternatively, you may prefer to clear the design with us once the licence has been awarded);
- if the application is successful, I will retain a copy of the Dossier and keep it up to date for the duration of the licence.

Signed:

Name in capitals:

Position in company:

Date:

Annex I

The energy efficiency class A of a lamp shall be determined as follows (from annex IV of Commission Directive 98/11/EC):

- Fluorescent lamps without integral ballast (those requiring and/or other control gears to connect them to the main)

$$W \leq 0,15\sqrt{\phi} + 0,0097\phi$$

- Other lamps

$$W \leq 0,24\sqrt{\phi} + 0,0103\phi$$

where ϕ is the lumen output of the lamp

where W is the power input the lamp in watts

The Calculation of energy efficiency at least 10 % better than class A is explained in Annex II.

Annex II

Sample Calculations for light sources to meet Ecolabel Criteria 1 – energy efficiency (based on annex IV of Commission Directive 98/11/EC).

Below is example for lamp "X" with the following characteristics: 12 Watt, 120 Volt Dimmable LED A-style Lamp. Technical specifications: W=12; Light Output ϕ = 800 lumens

First, reference value of lumen/watt is calculated (according to formula in Annex I):

$$W \leq 0,15\sqrt{800} + 0,0097 * 800$$

$$W \leq 12,002$$

$$800/12,002 = 66,65 \text{ Reference lumen per watt}$$

To meet Ecolabel criteria 1 for energy efficiency, the lumen per watt value should be at least 10 % better.

Therefore:

$$(66,65 * 10/100) + 66,65 = 73,3 \text{ Reference lumen per watt + at least 10 \%}$$

Second, real lumen per watt of the lamp "X" being considered for Ecolabel is calculated:

$$800/12 = 66,7 \text{ Real lumen per watt for lamp "X"}$$

Finally, reference value lumen per watt is compared with real value lumen per watt:

$$\text{Real lumen per watt for lamp "X"} \geq \text{Reference lumen per watt + at least 10 \%}$$

$$66,6 \geq 73,3$$

To meet Ecolabel criteria 1 for energy efficiency, real lumen per watt value has to be equal or higher than reference lumen per watt plus at least 10 % better value.

Result: Lamp "X" does not meet Ecolabel criteria 1 for energy efficiency.