

BLUE ANGEL

The German Ecolabel



Interactive Whiteboards

DE-UZ 166

Basic Award Criteria

Edition January 2012

Version 1

The Environmental Label is supported by the following four institutions:



The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is the owner of the label. It regularly provides information on the decisions taken by the Environmental Label Jury.



The German Environmental Agency with its specialist department for "Ecodesign, Eco-Labeling and Environmentally friendly Procurement" acts as office of the Environmental Label Jury and develops the technical criteria of the Basic Criteria for Award of the Blue Angel.



The Environmental Label Jury is the independent, decision-making body for the Blue Angel and includes representatives from environmental and consumer associations, trade unions, industry, the trade, crafts, local authorities, academia, the media, churches, young people and the German federal states.



The RAL gGmbH is the awarding body for the Environmental Label. It organises the process for developing the relevant award criteria in independent expert hearings – which involve all relevant interest groups.

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Table of Contents

1	Introduction	2
1.1	Background	2
1.2	Objectives of the Blue Angel Eco-Label	2
1.3	Definition	2
2	Scope	3
3	Requirements	3
3.1	Energy Efficiency	3
3.1.1	Power Consumption in Standby and Off Mode	3
3.1.2	Automatic Switching to Standby Mode	4
3.2	Material Requirements	4
3.2.1	General Requirements for Plastics	4
3.2.2	Additional Requirements for the Plastics used in Frame, Housing and Projection	
	Surface	7
3.3	Warranty	8
3.4	Repairability	8
3.5	Recyclable Design	8
3.6	User Information	9
4	Applicants and Parties Involved	9
5	Use of the Blue Angel Environmental Label	10

Specimen Contract

Annexes

1 Introduction

The Environmental Label Jury has set up these Basic Criteria for Award of the Blue Angel Eco-Label in co-operation with the Federal Minister for the Environment, Nature Conservation and Nuclear Safety, Umweltbundesamt (Federal Environmental Agency) and considering the results of expert hearings conducted by RAL gGmbH. RAL gGmbH has been tasked with awarding the Environmental Label.

Upon application to RAL gGmbH and on the basis of a Contract on the Use of the Environmental Label to be concluded with RAL gGmbH the permission to use the Blue Angel eco-label may be granted for all products, provided that they meet the requirements specified hereinafter.

1.1 Background

Interactive whiteboards are primarily used in educational institutions. Their goal is to deliver educational information to learners more effectively than traditional chalkboards.

Interactive whiteboards represent a product group that constitutes a growth market for Germany. The annual sales figures have shown significant growth in recent years.

1.2 Objectives of the Blue Angel Eco-Label

The Blue Angel eco-label for interactive whiteboards is meant to signal to the user of a device that the eco-labelled product meets the goals of environmental and consumer protection better than others. Thus, the eco-label can help consumers make more informed decisions when purchasing new equipment.

In addition, the eco-label is intended to encourage manufacturers to develop and market efficient products that combine high quality and the lowest possible energy consumption. It would also allow educational institutions and buyers to easily and specifically identify these product features.

1.3 Definition

The term **interactive whiteboard (or IWB)** refers to a device used as a projection surface for digital projectors (beamers) which allow not only the transmission of digital image data to an auditorium but also the analogue input using a pointing device or the finger. Interactive whiteboards use digital projectors (beamers) to create image content. The input data are transmitted to a connected computer.

Active mode means the condition where the interactive whiteboard performs its functions as intended. These functions include display (reflection) of digital image content and the input via the input interface as well as the playback of audio signals, if applicable.

Standby mode means the condition in which the interactive whiteboard is connected to the mains power source but will not enter active mode until receiving a command from a connected device (e.g. computer).

Off Mode means the condition in which the interactive whiteboard is connected to the mains power source but will not go into active or standby mode without a direct user-generated signal (e.g. activation of the on-switch). The power consumption in Off mode is lower than in active mode.

2 Scope

These Basic Criteria apply to interactive whiteboards.

Excluded from the scope are interactive flat screens which generate the digital image content without using a digital projector (e.g. using an LCD, LED or plasma screen).

These flat screens fall under the Basic Criteria for Award of the Blue Angel Eco-Label RAL-UZ 78c for Monitors or RAL-UZ 145 for Television Sets.

Also excluded from the scope are conventional whiteboards that do not feature electronic interactivity.

3 Requirements

3.1 Energy Efficiency

3.1.1 Power Consumption in Standby and Off Mode

Power consumption in standby and Off mode shall not exceed 0.5 watts. In these modes, the power consumption shall be determined

- at the data cable on interactive whiteboards that are powered solely from a data cable (e.g. USB),
- on the mains power side on equipment that is powered from the mains.

If the devices are powered from the mains they shall have an ON/OFF power switch to disconnect the devices from the mains.

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1 to the Contract, give the power consumption in standby and Off mode and submit the corresponding measurement protocols prepared by a DIN EN ISO/IEC 17025 accredited testing laboratory as Annex 2 confirming compliance with the requirements. Manufacturers' testing laboratories shall also be admitted provided that they have been authorised as SMT (Supervised Manufacturer's Testing) laboratory.

3.1.2 Automatic Switching to Standby Mode

With audio and data signal missing, for example, if the connected computer is turned off, the interactive whiteboards shall automatically switch to standby mode after 15 minutes at the most.

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1 to the Contract and indicate the switch-off time (Δt) for automatic switching from active to standby mode. In addition, the applicant shall submit, as Annex 2, the relevant measurement protocol prepared by a DIN EN ISO/IEC 17025 accredited testing laboratory confirming compliance with the requirement. Manufacturers' testing laboratories shall also be admitted provided that they have been authorised as SMT (Supervised Manufacturer's Testing) laboratory.

Note: If the devices have a power consumption in active mode that does not exceed the maximum permissible value as specified in para. 3.1.1 Power Consumption in Standby and Off Mode no compliance verification will be required for the automatic switching to standby mode. Instead, the applicant shall give the power consumption in active mode and present the relevant measurement protocols prepared by a testing laboratory as described above.

3.2 Material Requirements

3.2.1 General Requirements for Plastics

The plastics shall not contain any substances with the following properties:

a) Substances that are identified as substances of very high concern under the Chemicals Regulation REACH (1907/2006/EC) and which have been included in the list (so-called Candidate List) set up in accordance with Article 59 (1) of the REACH Regulation¹,

b) Substances which according to the criteria of Regulation (EC) No 1272/2008² (or Directive 67/548/EEC) are classified with following H Phrases (R Phrases) or meet the criteria for such classification:³

Toxic Substances:

H300	(R28)	Fatal if swallowed.
H301	(R25)	Toxic if swallowed.
H304	(R65)	May be fatal if swallowed and enters airways.
H310	(R27)	Fatal in contact with skin.
H311	(R24)	Toxic in contact with skin.
H330	(R26)	Fatal if inhaled.
H331	(R23)	Toxic if inhaled.
H370	(R39/23/24/25/26/27/28)	Causes damage to organs.
H371	(R68/20/21/22)	May cause damage to organs.
H372	(R48/25/24/23)	Causes damage to organs.
H373	(R48/20/21/22)	May cause damage to organs.

¹ For the Candidate List, as amended, please go to:

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

² Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (short: CLP Regulation).

The CLP Regulation that has come into force on January 20, 2009, replaces the old Directives 67/548/EEC (Dangerous Substances Directive) and 1999/45/EC (Dangerous Preparations Directive). According to the said regulation, substances are classified, labelled and packed until December 1, 2010 according to Directive 67/548/EEC while mixtures (formerly preparations) are classified, labelled and packed until June 1, 2015 according to Directive 1999/45/EC. Thereafter the CLP Regulation shall be applied. Both the new indications of danger (H Phrases) and the hitherto applicable Risk or R Phrases shall be indicated for substances until the 1st of June 2015.

³ The harmonized classifications and labellings of dangerous substances can be found in Part 3 of Annex VI to Regulation (EC) No 1272/2008 (CLP Regulation). Table 3.1 lists classifications and labellings according to the new system using H Phrases; Table 3.2 lists classifications and labellings according to the old system using R Phrases. The CLP Regulation can be found, for example, at: http://www.reach-info.de/ghs_verordnung.htm

It is to be expected that a comprehensive classification and labelling inventory will be made publicly available on the ECHA website in 2011. This inventory will also include the manufacturers' self-classifications of hazardous substances.

Carcinogenic, Mutagenic and Reprotoxic Substances:

H340	(R46)	May cause genetic defects.
H341	(R68)	Suspected of causing genetic defects.
H350	(R45)	May cause cancer.
H350i	(R49)	May cause cancer by inhalation.
H351	(R40)	Suspected of causing cancer.
H360F	(R60)	May damage fertility.
H360D	(R61)	May damage the unborn child.
H360FD	(R60/61)	May damage fertility. May damage the unborn child.
H360Fd	(R60/63)	May damage fertility. Suspected of damaging the unborn child.
H360Df	(R61/62)	May damage the unborn child. Suspected of damaging fertility.
H361f	(R62)	Suspected of damaging fertility.
H361d	(R63)	Suspected of damaging the unborn child.
H361fd	(62/63)	May damage fertility. May damage the unborn child.
H362	(R64)	May cause harm to breast-fed children.

Water-Hazardous Substances:

H400	(R50)	Very toxic to aquatic life.
H410	(R50/53)	Very toxic to aquatic life with long-lasting effects.
H411	(R51/53)	Toxic to aquatic life with long-lasting effects.

Other Health and Environmental Effects:

H420	(R59)	Hazardous to the ozone layer.
EUH029	(R29)	Contact with water liberates toxic gas.
EUH031	(R31)	Contact with acids liberates toxic gas.
EUH032	(R32)	Contact with acids liberates very toxic gas.
EUH070	(R39-41)	Toxic by eye contact .

Exempt from regulations a and b are:

- process-related, technologically unavoidable impurities in concentrations below the classification threshold for mixtures.
- plastic parts less than 25 g in weight.

Exempt from regulation b are:

- Monomers or additives that turn into polymers during the manufacture of plastics or are chemically (covalently) bound to the plastic if their residual concentrations are below the classification thresholds for mixtures.

Compliance Verification:

The applicant shall declare compliance with the requirement in Annex 1 to the Contract and present in Annex 3 to the Contract declarations from the manufacturers or suppliers (e.g. from the suppliers of housings, printed circuit boards, cables and plugs) stating that the product does not contain the banned substances. This shall also apply to the recycled plastics used. The applicant shall list the plastic parts greater than 25 g in mass in Annex 4.

3.2.2 Additional Requirements for the Plastics used in Frame, Housing and Projection Surface

The use of halogenated polymers shall not be permitted. Moreover, halogenated organic compounds shall neither be used as additives nor added to the plastic parts.

Exempt from this regulation are:

- fluoroorganic additives (as, for example, anti-dripping agents) used to improve the physical properties of plastics, provided that they do not exceed 0.5 weight percent.
- fluoroplastics as, for example, PTFEs.
- plastic parts less than 25 g in weight.

The flame retardants used in plastic parts greater than 25 g in mass shall be named and identified by their CAS Registry Nos.

Compliance Verification:

The applicant shall declare compliance with the requirements in Annex 1 to the Contract.

The applicant shall list the plastic parts greater than 25 g in mass in Annex 4.

The applicant shall request the manufacturers or suppliers of plastics to send a written declaration to RAL gGmbH stating that the housing plastics do not contain the banned substances. In addition, the applicant shall prompt the manufacturers/suppliers of plastics to confidentially disclose the chemical designation of the flame retardants used (CAS No) to RAL gGmbH. This shall also apply to the recycled plastics used. (Annex 3 to the Contract).

3.3 Warranty

The applicant shall offer a free-of-charge minimum 5-year warranty on the interactive whiteboards.

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1 to the Contract and submit the relevant pages of the product literature (Annex 5).

3.4 Repairability

The applicant undertakes to make sure that the availability of spare parts for product repair and the infrastructure required for such repair is guaranteed for at least 5 years from end of production and that the customer is informed about this guaranteed availability of spare parts.

Parts to be replaced are those parts which, typically, may break down within the scope of the ordinary use of a product - whereas those parts which normally exceed the average life of the product need not be kept available as spare parts.

Also, the applicant undertakes to provide an after-sales service or to hire a company to do on-site repair work at the user's facility.

The product literature shall include detailed information on the above requirements.

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1 to the Contract and submit the relevant pages of the product literature in Annex 6.

3.5 Recyclable Design

Blue Angel eco-labelled devices shall meet the following requirements for recyclable design:

- The devices shall be so designed as to allow an easy disassembly for recycling purposes in order to make sure that plastics and metals can be separated as fractions from materials of other functional units and, if possible, be recycled.
- The devices shall be so designed as to support specialist disassembly by means of intelligently designed connections or allow disassembly by use of ordinary tools.
- Specialist firms hired by the manufacturer to recycle the device shall receive information for device disassembly.

- The manufacturer shall publish the device recycling strategy developed with respect to the above points on the Internet.

Compliance Verification

The applicant shall declare compliance with the requirements in Annex 1 to the Contract, present the recycling strategy with respect to the above points to RAL gGmbH and give the web link to the recycling strategy.

3.6 User Information

In order to support the objectives of eco-labelling the product information shall include the following details, in particular:

- Users are to be informed that during periods of non-use the devices shall be disconnected from the mains by an adequate technical installation (e.g. switch, switchable socket) and/or adequate operation.
- Users are to be informed that the energy settings of the computers and projectors connected to the interactive whiteboards have an impact on the power consumption of the entire system. That is why digital projectors used together with the interactive whiteboards should meet the requirements for digital projectors as set forth in the Basic Criteria RAL-UZ 127.
- Users are to be informed that the use of loudspeakers or wireless data transmission between computers and interactive whiteboards have an impact on the power consumption of the entire system.

Compliance Verification

The applicant shall declare compliance with requirements in Annex 1 to the Contract and submit excerpts from the relevant product information (Annex 6).

4 Applicants and Parties Involved

4.1 Manufacturers or distributors of products under para. 2 shall be eligible for application.

4.2 Parties involved in the award process are:

- RAL gGmbH to award the Blue Angel eco-label,
- the federal state being home to applicant's production site,
- Umweltbundesamt (Federal Environmental Agency) which after the signing of the contract receives all data and documents submitted in application for the Blue Angel in order to be able to further develop the Basic Award Criteria.

5 Use of the Blue Angel Environmental Label

5.1 The terms governing the use of the Environmental Label by the applicant are stipulated by a Contract on the Use of the Environmental Label to be concluded with RAL gGmbH.

5.2 Within the scope of such contract the applicant undertakes to comply with the requirements under paragraph 3 while using the environmental label.

5.3 Contracts on the Use of the Environmental Label are concluded to fix the terms for the certification of products under paragraph 3. Such contracts shall run until December 31, 2017.

They shall be extended by periods of one year each, unless terminated in writing by March 31, 2017 or March 31 of the respective year of extension.

After the expiry of the contract the Environmental Label may neither be used for labelling nor for advertising purposes. This regulation shall not affect products being still in the market.

5.4 The applicant (manufacturer) shall be entitled to apply to RAL gGmbH for an extension of the right to use the eco-label to the product entitled to the label if it is to be marketed under another brand/trade name and/or other marketing organizations.

5.5 The Contract on the Use of the Environmental Label shall specify:

5.5.1 Applicant (manufacturer/distributor)

5.5.2 Brand / trade name, product designation

5.5.3 Distributor (label user), i.e. the marketing organization under para. 5.4

CONTRACT

No

on the Award of the Blue Angel Environmental Label

RAL gGmbH as the label-awarding agency and the firm of
(Distributor)

as applicant conclude the following
Contract on the Use of the Environmental Label:

S P E C I M E N

1. 1. The applicant shall - under the following conditions - be entitled to use the Environmental Label forming the basis of this Contract for the labelling of the product / product group / project:
"Interactive Whiteboards"

"(Brand/Trade name)"

This shall not include the right to use the Environmental Label as part of a brand. Unless otherwise agreed, the Environmental Label shall only be used in the above given shape and colour and shall be marked at the bottom "Jury Umweltzeichen" (Environmental Label Jury). The entire inner surrounding text shall always be identical as regards font size, form, thickness and colour and it shall be easy to read.
2. The Environmental Label according to para. 1 may only be used for the above-mentioned product / product group / project.
3. If the Environmental Label is used for advertising purposes or other applicant activities the applicant shall make sure that it is exclusively used in connection with the above-named product / product group / project for which the use of the Environmental Label has been granted and settled under this contract. The applicant shall be solely responsible for the way the label is used, above all, in advertising.
4. During the entire period of label use the product / product group / project to be labelled shall comply with all requirements and conditions for the use of the label as specified in the "Grundlage für Umweltzeichen-Vergabe RAL-UZ 166" (Basic Criteria for Award of the Environmental Label RAL-UZ 166), as amended. This shall also apply to the reproduction of the Environmental Label (including surrounding text). Claims for damages against RAL gGmbH, especially on the grounds of third party objections to applicant's use of the label and the accompanying advertising shall be ruled out.
5. If the "Basic Criteria for Award of the Environmental Label" provide for checks by third parties the applicant shall bear the costs accruing in connection therewith.
6. Should the applicant himself or third parties find out that the applicant does not comply with the conditions as stipulated in paras. 2-5 the applicant shall be liable to inform RAL gGmbH and stop the use of the Environmental Label until the conditions are complied with again. Should the applicant be incapable of restoring the state required for the use of the label immediately or should the applicant seriously offend against this contract RAL gGmbH may, if necessary, withdraw the Environmental Label and prohibit the applicant from using the label any longer. Claims for damages against RAL gGmbH because of the withdrawal of the label shall be ruled out.
7. The Contract on the Use of the Environmental Label may be terminated for good reason.
Examples of good reasons are:
- unpaid contributions
- substantiated risk of injury and death.
In such case, applicant's continued use of the Environmental Label shall be prohibited. The applicant shall not be entitled to bring a claim for damages against RAL gGmbH (see above: paragraph 6, sentence 3).
8. The applicant undertakes to pay RAL gGmbH an amount according to the "Entgeltordnung für das Umweltzeichen" (Schedule of Fees for the Environmental Label), as amended, for the period of use.
9. According to the Basic Criteria for Award of the Environmental Label RAL-UZ 166 this contract will run until **December 31, 2017**. It shall be extended by periods of one year each, unless terminated in writing by **March 31, 2017** or by March 31 of the respective year of extension. After the expiry of the contract the Environmental Label may neither be used for labelling nor for advertising purposes. This regulation shall not affect the products being still in the market.
10. Products / projects marked with the Environmental Label and the advertising for these products / projects may reach the consumer only when naming the company of the
(Applicant/Distributor).

Sankt Augustin, this day of20..

Place, Date

RAL gGmbH
Management

(Signature of authorised person
and company stamp)