

# **BLUE ANGEL**

**The German Ecolabel**



**Hair Dryers**

**DE-UZ 175**

**Basic Award Criteria**

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**Version 1.3**

**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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**This document is a translation of a German original. In case of dispute, the original document should be taken as authoritative.**

# 1 Introduction

## 1.1 Preface

In cooperation with the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the German Environmental Agency and considering the results of the expert hearings conducted by RAL gGmbH, the Environmental Label Jury has set up these Basic Criteria for the Award of the Environmental Label. 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 Environmental Label may be granted to all products, provided that they comply with the requirements as specified hereinafter.

The product must comply with all the legal requirements in the country in which it is to be marketed. The applicant shall declare that the product meets this requirement.

## 1.2 Background

Hair care appliances are basic items that can be found in most German households. The power consumption of a hand-held hair dryer is between 960 and 2300 watts. The annual electricity consumption of an average hair dryer is 65 kWh if used every day. This is about as much as the consumption of, for example, an iron or an efficient cooling device.

Blue Angel eco-labelled hair care appliances achieve power savings of up to 30 percent compared to standard appliances.

In addition, Blue Angel eco-labelled hair care appliances meet requirements for noise emission, the plastics and materials used as well as for product safety and durability. Moreover, the Operating Instructions must include information on environmentally conscious user behaviour and product safety.

## 1.3 Objectives of the Blue Angel Eco-Label

Climate protection, reduction of energy consumption as well as avoidance of pollutants and waste are key objectives of environmental protection.

The Blue Angel eco-label for hair care appliances may be awarded to products with the following environmental properties:

- low energy consumption
- low noise emissions
- high safety standards
- reduced pollutant contents

Therefore, following benefits for the environment and health are stated in the explanatory box:



## 1.4 Basic Legal Provisions

It is a matter of course for Blue Angel eco-labelled products to comply with current laws and regulations, especially with the following ones:

- EU Directives 2002/96/EC<sup>1</sup> and 2002/95/EC<sup>2</sup> - regulating the disposal of appliances - transposed into German law by the Elektro- und Elektronikgesetz (ElektroG) (Electrical and Electronic Equipment Act)<sup>3</sup> are complied with. For precautionary reasons the product meets material requirements going beyond these provisions.
- The substance requirements defined by the EU Chemicals Regulation REACH (1907/2006/EC)<sup>4</sup> and Regulation EC No. 1272/2008<sup>5</sup> (or Directive 67/548/EEC) are met.
- The requirements of the European Communities concerning the electromagnetic safety of electrical and electronic products for obtaining the „CE“ Mark of Conformity (Directive: 2004/108/EC; Standard: EN 55014-1)<sup>6</sup> are met.
- The requirements of the European Communities concerning the safety of low-voltage equipment for obtaining the „CE“ Mark of Conformity (Directive: 2006/95/EC; Standards: 60335-1-23 and 60335-2-23)<sup>7</sup> are met.

## 2 Scope

These Basic Criteria apply to hand-held hair dryers using the supply of hot and cold air for hair care, hair drying and styling.

Other hair care appliances, such as, for example, hot-air hair stylers, hair straighteners, curling irons, crimpers, wall mount hair dryers and hood dryers shall be excluded from the scope.

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<sup>1</sup> Directive on Waste Electrical and Electronic Equipment (WEEE), Directive 2002/96/EC of the European Parliament and of the Council, dated 27 January 2003

<sup>2</sup> Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, Directive 2002/95/EC, Official Journal No L 37, 13 February 2003

<sup>3</sup> Gesetz über das Inverkehrbringen, die Rücknahme und die umweltverträgliche Entsorgung von Elektro- und Elektronikgeräten (Act on the placing on the market, return and environmentally sound disposal of waste electrical and electronic equipment), Federal Law Gazette 2005, Part I, No.17 (23 May 2005)

<sup>4</sup> REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

<sup>5</sup> 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

<sup>6</sup> DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC; CENELEC EN 55014-1:2006/A1:2009 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission

<sup>7</sup> DIRECTIVE 2006/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits; CENELEC EN 60335-2-23:2003/A11:2010 Household and similar electrical appliances. Safety. Particular requirements for appliances for skin or hair care

## 2.1 Definition: Hand-Held Hair Dryer

A hand-held hair dryer (also-called pistol-grip hair dryer) is a non-wall-mounted hair dryer that can be manually and freely moved to the desired position for hair drying. Appliances secured by an anti-theft fastening (e.g. in hotels) shall not be considered as wall mounted hair dryers. This electrical appliance dries wet hair by means of hot, warm or cold air, using the following principle: A fan blows air across heating elements. The hot air thus generated is then blown through the nozzle attachment into the hair.

## 3 Requirements

### 3.1 Energy Consumption

The applicant shall indicate the ratio of power consumption (in Wh) to drying rate of a hand-held hair dryer (DR in g/min). The drying rate shall be determined according to the DIN EN 61855 standard while the power consumption shall be determined according to DIN EN 60335-1.

#### 3.1.1 Energy Consumption of a Hand-Held Hair Dryer

The power consumption to drying rate ratio of a hand-held hair dryer shall not exceed

$$5.2 \frac{\frac{Wh}{g}}{min} .$$

Power consumption and drying rate shall be determined according to DIN EN 61855.

#### **Compliance Verification**

*The applicant shall declare compliance with the requirement and submit a measurement protocol prepared by a DIN EN ISO/IEC 17025 accredited laboratory or a Supervised Manufacturer's Testing (SMT) laboratory (Annex 2) as well as the corresponding pages of the product literature. The drying rate shall be determined according to DIN EN 61855.*

### 3.2 Noise Emissions

The evaluation of noise emissions is based on the indication of the declared A-weighted sound power level  $L_{WA,d}$  in decibel (dB). Hand-held hair dryers shall not exceed an  $L_{WA,d}$  of 80 dB with the dryer set at the highest speed (fan) and heat settings.

The  $L_{WA,d}$  results from the measurement according to DIN EN 60704-1<sup>8</sup> and DIN EN 60704-2-9<sup>9</sup> as well as from the use of a correction value determined in accordance with DIN EN 60704-3<sup>10</sup>. Single measurements shall not be permitted. The measurement results shall be included in the product literature.

#### **Compliance Verification**

*The applicant shall declare compliance with the requirement and submit a measurement protocol prepared by a DIN EN ISO/IEC 17025 accredited testing laboratory or a Supervised*

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<sup>8</sup> DIN EN 60704-1: Household and similar electrical appliances - Test code for the determination of airborne noise - Part 1: General requirements

<sup>9</sup> DIN EN 60704-2-9: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-9: Particular requirements for electric hair care appliances

<sup>10</sup> DIN EN 60704-3: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 3: Procedure for determining and verifying declared emission values

*Manufacturer's Testing (SMT) laboratory (Annex 3) as well as the corresponding pages of the product literature.*

### **3.3 Material Selection and Labelling**

- Plastic parts over 25 grams may not consist of more than two separable polymers or polymer blends.
- Plastic components weighing more than 25 grams shall be marked according to ISO 11469.

### **Compliance Verification**

*The applicant shall declare compliance with the requirement in Annex 1 to the Contract. The applicant shall name the plastics used in parts > 25 grams and submit a list of plastics according to Annex 4 to the Contract (see form).*

### **3.4 Material Requirements for Accessible Housing Parts (including Attachments)**

No substances may be added as constituents to the housing parts which are classified as:

- a) carcinogenic in categories 1 or 2 according to Table 3.2 or categories 1A and 1B according to Table 3.1 of Annex VI to Regulation (EC) No 1272/2008<sup>11</sup>
- b) mutagenic in categories 1 or 2 according to Table 3.2 or categories 1A and 1B according to Table 3.1 of Annex VI to Regulation (EC) No 1272/2008
- c) reprotoxic in categories 1 or 2 according to Table 3.2 or categories 1A and 1B according to Table 3.1 of Annex VI to Regulation (EC) No 1272/2008
- d) persistent, bioaccumulative and toxic (PBT substances) or very persistent and very bioaccumulative (vPvB substances) according to the criteria of Annex XIII to the REACH Regulation or of very high concern for other reasons which have been included into the List (so-called "Candidate List"<sup>12</sup>) set up in accordance with REACH, Article 59, paragraph.

Halogenated polymers shall not be permitted. Neither may halogenated organic compounds be added as flame retardants. Moreover, no flame retardants may be added which are labelled

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<sup>11</sup> 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, Annex VI Harmonized classification and labelling for certain hazardous substances, Part 3: Harmonized classification and labelling – (short: GHS Regulation). [http://www.reach-info.de/ghs\\_verordnung.htm](http://www.reach-info.de/ghs_verordnung.htm), as amended.

The GHS Regulation (Global Harmonization System), that has come into force on January 20, 2009, replaces the old Directives 67/548/EEC and 1999/45/EC. According to the said regulation, substances are classified, labelled and packed until December 1, 2010 according to Directive 67/548/EEC (Dangerous Substances Directive) while mixtures are classified, labelled and packed until June 1, 2015 according to Directive 1999/45/EC (Dangerous Preparations Directive). Notwithstanding this, the classification, labelling and packaging of substances and preparations may be performed according to the provisions of the GHS Regulation already before December 1, 2010 or June 1, 2015, respectively. In such case, the provisions of Dangerous Substances Directive or Dangerous Preparations Directive shall not be applicable.

<sup>12</sup> Link to the Candidate List of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH): [http://echa.europa.eu/consultations/authorisation/svhc/svhc\\_cons\\_en.asp](http://echa.europa.eu/consultations/authorisation/svhc/svhc_cons_en.asp)

with Risk Phrase R50/53 or Hazard Phrase H410 pursuant to Part 3 of Annex VI to Regulation (EC) 1272/2008.

The following shall be exempt from this rule:

- process-related, technically unavoidable impurities;
- 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;
- cord, plug und nozzle attachment.

### **Compliance Verification**

*The applicant shall declare compliance with the requirements and submit a written declaration from the plastic manufacturers or suppliers or ensure the submission of such declaration to RAL gGmbH. Such declaration shall confirm that the banned substances have not been added to the plastics and give the chemical designation of the flame retardants used, including CAS No. (Annex 5).*

### **3.5 Safety**

The appliance shall meet the requirements for the GS Mark.

### **Compliance Verification**

*The applicant shall declare compliance with the requirements in Annex 1 to the Contract and submit evidence of having received the GS Certificate for the appliance from a named independent testing laboratory in Annex 6.*

### **3.6 Endurance Test**

The product shall be subjected to a 400 hour endurance test in 15-minute cycles of operation and pause adding up to a pure operating time of 200 hours. During the cycles of operation the appliances shall be operated at nominal voltage with the hair dryer set at both the highest speed (fan) and heat settings. For this purpose, the appliances shall be flexibly hung up without attachment in an appropriate ready-to-use position. The room temperature shall be monitored (20°C +-5K) during the test.

### **Compliance Verification**

*The applicant shall declare compliance with the requirements in Annex 1 to the Contract and submit in Annex 7 a test protocol prepared by a DIN EN ISO/IEC 17025 accredited laboratory or a Supervised Manufacturer's Testing (SMT) laboratory.*

### **3.7 Warranty**

The applicant undertakes to offer a minimum 2-year warranty on the entire product, provided that the product has been used for its intended purpose.

The product literature shall include warranty details.

### **Compliance Verification**

*The applicant shall declare compliance with the requirement in Annex 1 to the Contract and submit the corresponding pages of the product literature in Annex 8 to the Contract.*

### **3.8 Consumer Information**

The documentation included with the appliances shall include both technical specifications and environmental and safety-related user information. The following basic information shall be included in the product literature and available on the manufacturer's website:

- a) Use of the appliance and product accessories, if applicable
- b) First-time use (e.g. heating-up processes in well ventilated rooms)
- c) Cleaning required to maintain the good use properties of the appliance
- d) Weight (g)
- e) Length of the power supply cord (m)
- f) Power consumption (watts) without attachments (in lowest and highest settings)
- g) Number of settings according to Operating Instructions
- h) Instructions for environmentally sound disposal at the end of the life cycle in accordance with the German Elektro- und Elektronikgesetz (ElektroG) (Electrical and Electronic Equipment Act)
- i) Instructions for packaging disposal

#### ***Compliance Verification***

*The applicant shall declare compliance with the requirement in Annex 1 to the Contract and submit the corresponding pages of the product literature (Annex 8).*

### **4 Applicants and Parties Involved**

Manufacturers or distributors of final products according to Paragraph 2 shall be eligible for application.

Parties involved in the award process are:

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

### **5 Use of the Environmental Label**

The use of the Environmental Label by the applicant is governed by a contract on the use of the Environmental Label concluded with RAL gGmbH.

Within the scope of such contract, the applicant undertakes to comply with the requirements under Paragraph 3 while using the Environmental Label.

Contracts on the Use of the Environmental Label are concluded to fix the terms for the certification of products under Paragraph 2. Such contracts shall run until December 31, 2019. They shall be extended by periods of one year each, unless terminated in writing by March 31, 2019 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.

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

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

- Applicant (manufacturer/distributor)
- Brand/trade name, product description
- Distributor (label user), i.e. the above-mentioned marketing organisations.

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