

BLUE ANGEL

The German Ecolabel



**Energy-Efficient and Water-Saving Hand-Held
and Overhead Shower Heads**

DE-UZ 157

Basic Award Criteria

Edition January 2022

Version 1

The Environmental Label is supported by the following four institutions:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

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

In the product group "water-saving hand-held and overhead shower heads", the focus is not only placed on saving water but also on saving energy due to their lower consumption of hot water for the purposes of personal hygiene in comparison to standard shower heads. In 2009, the average water consumption in Germany stood at 122 litres per person per day (private households and small businesses; bdeu 2010), of which 44 litres were used per person per day for bathing, showering and personal hygiene. Significant savings can be made in this area by using shower heads with a lower flow rate: Shower heads usually have a flow rate of around 15 litres per minute, whereas low-flow shower heads use less than 8 l/min. Water savings of more than 40% are thus possible in comparison to standard products available on the market.

A two-person household using a gas-fired, low-temperature boiler can save significantly more than 200 kg of CO_{2e} emissions per year by using water-saving tapware. (this assumption is based on an ecodesign study, 2014: each person showers 365 times a year for 7 minutes each time).

1.3 Objectives of the Environmental Label

A reduction in energy consumption and the avoidance of pollutants and waste are key objectives of environmental protection. This can make a contribution to climate protection, preserve resources, avoid the emission of pollutants into the environment and reduce the space used for landfill. The Blue Angel environmental label for water-saving hand-held and overhead shower heads may be awarded to products featuring the following environmental properties:

- Low water consumption
- Low energy consumption due to the efficient use of hot water
- Avoidance of material-related contamination of the drinking water
- Low risk of bacterial contamination
- Longevity and serviceability

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



2 Scope

These Basic Award Criteria apply to hand-held and overhead shower heads according to DIN EN 1112. If the hand-held and overhead shower heads are sold in a set with one shower hose in accordance with EN 1113, these products are also included within the scope of these Basic Award Criteria.

3 Requirements

3.1 Flow rate

The maximum flow rate must not exceed 8 l/min irrespective of the water pressure.

Compliance verification

The applicant shall declare compliance with the requirement and submit a measurement report from a testing institution accredited in accordance with DIN EN ISO/IEC 17025. The test must be set up in accordance with DIN EN 1112. As an exception to DIN EN 1112, the measurement of the flow rate should be carried out at pressures of 1.5 / 3.0 / 4.5 bar (to be measured in ascending order only). The average value from all three measurements must not exceed 8 l/min. In addition, the difference between the lowest and highest values must be less than 2 l/min. If different types of water jet can be selected on a shower head, the measurements must be carried out using the water jet with the highest flow rate.

3.2 Longevity and serviceability

The shower head must comply with the requirements in DIN EN 1112.

The shower head must have an anti-clog system that prevents it from getting clogged by dirt particles in the water, e.g. in the form of a dirt collection sieve.

The product must be designed so that its exchangeable components can be easily replaced by the end user or a professional service technician where relevant. Information on which elements can be exchanged must be clearly provided in the product information sheet (see Paragraph 3.6).

In addition, the applicant must ensure that spare parts (exchange parts) are made available for at least 7 years following the termination of production.

The applicant must provide at least a 7-year warranty for the repair or replacement of the product.

Compliance verification

The applicant shall declare compliance with the requirements and submit the corresponding pages of the product documentation.

3.3 Material requirements

Materials that come into contact with drinking water must be hygienically safe and must not adversely impact the quality of the drinking water.

They must not release substances into the drinking water in concentrations higher than what is considered unavoidable according to the generally accepted standards of technology or which would directly or indirectly reduce the protection of human health provided for in the German Drinking Water Ordinance (Trinkwasserverordnung) or influence the odour or taste of drinking water.

Organic materials must comply with the legally binding evaluation criteria from the German Environmental Agency for the hygienic assessment of materials in contact with drinking water¹. The Elastomer Guidelines² must be complied with for elastomers. In addition, the evaluation criteria stated above stipulate that the materials must comply with the microbiological requirements in DIN EN 16421.

Metal materials in contact with drinking water must comply with the evaluation criteria for metallic materials³.

The stated requirements also apply to recycled materials in contact with drinking water.

Compliance verification

The applicant shall declare compliance with the requirement and submit a corresponding test report from a testing institution accredited in accordance with DIN EN ISO/IEC 17025 or a certificate from an appropriately accredited certification body.

3.4 Noise emissions

A certificate must be submitted to confirm that the shower head is classified in group I or II of sanitary tapware according to DIN 4109.

Compliance verification

The applicant shall declare compliance with the requirement and submit a corresponding general building inspection test certificate.

3.5 Sales packaging

The plastics used for the sales packaging of the shower heads are not permitted to contain any halogenated polymers. The plastics used must be marked in accordance with the currently valid version of Annex 5 of the German Packaging Ordinance (Verpackungsverordnung).

¹ Evaluation criteria for plastics and other organic materials in contact with drinking water: <https://www.umweltbundesamt.de/dokument/bewertungsgrundlage-fuer-kunststoffe-andere>

² <https://www.umweltbundesamt.de/dokument/leitlinie-zur-hygienischen-beurteilung-von-0>

³ <https://www.umweltbundesamt.de/dokument/bewertungsgrundlage-fuer-metallene-werkstoffe-im-0>

Paper and cardboard in the packaging must contain at least the following proportions of recycled fibres for the following packaging materials:

- Paperboard: 80%
- Corrugated cardboard: 25%
- Solid fibreboard: 40%
- Wound tubes: 90%

Alternative rules for sales packaging made out of paper and cardboard:

The packaging design must be as simple as possible and must take into account easy reusability and the environmental impact related to disposal of the packaging. The distributor must provide detailed information, including the exact proportion of recycled fibres used in the packaging. Insofar as some virgin fibres from wood are used in the manufacture of the packaging, it is imperative from an ecological viewpoint that the wood is sourced from sustainably managed forests and forestry companies with high ecological standards. The following certificates will be accepted:

- FSC 100% and FSC Recycled from the Forest Stewardship Council
- PEFC Recycled and PEFC Regional from the PEFC Council (Programme for the Endorsement of Forest Certification Schemes)
- Certification according to the Naturland standard.

Compliance verification

The distributor shall declare compliance with the requirements for plastics. For paper and cardboard, the distributor shall either declare that the packaging materials used for the products contain at least the stated proportions of recovered fibres or provide detailed information on the packaging and also submit corresponding certificates for the fibres.

3.6 Consumer information

Easy-to-understand, technical product information must be enclosed with the product in printed form in accordance with DE-UZ 195 or made available online on the manufacturer's website. The packaging must state where this information can be found. It must include at least the following information:

- Flow rate of the hand-held or overhead shower head in l/min at a pressure of 3 bar. If the product has different types of water jet, the maximum flow rate must be indicated and, where applicable, supplemented with additional information on the other types of water jet available.
- Information on suitable cleaning, care and decalcification of the hand-held or overhead shower head.
- Information on the water supply systems suitable for use with the shower head.
- Information on the recommended system pressure for the shower head, as well as the minimum and maximum operating pressures.
- Instructions for the installation and connection of the shower head.
- Information on professional disposal of the shower head.
- Information on the exchangeable components (see Paragraph 3.2)

Compliance verification

The applicant shall declare compliance with the requirement and submit the corresponding pages of the product documentation.

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, 2025.

They shall be extended by periods of one year each, unless terminated in writing by March 31, 2025 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.