BLUE ANGEL

The German Ecolabel



Fabric Towel Rolls Supplied in Towel Dispensers

DE-UZ 77

Basic Award Criteria
Edition January 2021
Version 2

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-Labelling 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.

If you require further information please contact:

RAL gGmbH

RAL UMWELT

Fränkische Straße 7 53229 Bonn

Tel: +49 (0) 228 / 6 88 95 - 190 E-Mail: <u>umweltzeichen@ral.de</u> www.blauer-engel.de Version 1 (01/2021): First Edition, Expiry date: December 31, 2025

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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

For hygiene, serviceability and environmental reasons fabric-towel rolls are to be recommended for drying and follow-up cleaning after hand washing at public facilities and company washrooms.

1.3 Objectives of the Environmental Label

Fabric towel rolls distinguish themselves by a long service life (80 - 100 cycles), good hygiene properties and possible subsequent use (such as polishing cloths and cleaning rags).

Modern laundries distinguish themselves by low water consumption, environmentally acceptable use of washing agents and recirculation of the washing water. Moreover, their long service life and their subsequent use, e.g. as cleaning rags, help reduce the volume of waste.

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



1.4 Definitions

For the purpose of these Award Criteria, the following definitions shall apply:

- **Stain Removers**: collective term for spotting agents applied in liquid, paste, spray, foam or stick form which, due to their content of dissolving, reducing, adsorbing or otherwise acting ingredients, can be used to remove localised soiling on textiles.
- Mixture: blends, mixtures or solutions consisting of two or more substances.
- Plastic: a macromolecular substance with a solubility in water < 1 mg/L, obtained by:

- a) a polymerisation process such as polyaddition or polycondensation, or by any other similar process of monomers and other starting substances; or
- b) chemical modification of natural or synthetic macromolecules; or
- c) microbial fermentation.
- Microplastic: plastic particles, between 100 nm und 5 mm in size.¹
- **Nanomaterial**: a means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm.²
- **Substance**³: a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.
- **Impurity**⁴: An unintended constituent present in a substance as manufactured. It may originate from the starting materials or be the result of secondary or incomplete reactions during the manufacture process. While it is present in the final substance, it was not intentionally added.

2 Scope

These criteria apply to systems of fabric towel rolls⁵ supplied in towel dispensers that meet the following requirements for fabric towel rolls and the washing process.

3 Requirements

The Blue Angel ecolabel may be used to mark systems under paragraph 2, provided that they meet the following requirements:

3.1 Requirements to be met by the Fabric Towel Rolls:

3.1.1 Material Composition of the Fabric Towel Rolls

The fabric or cloth towel rolls must be made of cotton with no more than 30 percent of other fibres.

3.1.2 Life Cycle

The fabric towel rolls must, on the average, be reusable for at least 80 cycles and be available from a towel dispenser.

3.1.3 Hygiene

The used part of a towel must be retracted into the towel dispenser after each use.

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^{1 &}lt;u>https://echa.europa.eu/documents/10162/6ba4eedb-273c-6806-492e-91ecb9df50cf</u>

https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:275:0038:0040:EN:PDF

REACH, Article 3, as well as CLP Regulation, Article 2

Guidance for Identification and naming of substances under REACH and CLP, Version 2.1 May 2017, Chapter 2.2, p. 14, https://echa.europa.eu/documents/10162/23036412/substance_id_de.pdf

DIN EN 13569:2001-12 Cabinet roller towels - Performance requirements and processing; German version EN 13569:2001

3.1.4 Portioning

One fabric towel roll must be long enough to provide at least 80 towel portions.

3.1.5 Subsequent Use

Worn or torn fabric towel rolls must be made available for subsequent use (e.g. as cleaning rags).

3.1.6 Regulations and Directives

The fabric towel rolls and the dispenser systems shall meet the requirements set forth in the Richtlinie für Krankenhaushygiene und Infektionsprävention (Guidelines for hospital hygiene and infection prevention)⁶ (provided that they are used in the respective working areas) as well as the Arbeitsstätten-Richtlinien (ASR) (Workplace Guidelines) as laid down in the German Arbeitsstättenverordnung⁷ (ArbStättV) (Workplace Ordinance).

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1.

3.2 Requirements for Washing and Cleaning Agents and other Auxiliaries

3.2.1 Solvents

The towel rolls shall be washed without the addition of any organic solvents during the washing process (pre-cleaning, main cleaning, rinsing bath).

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1.

3.2.2 Stain Removers

Stain removal shall be done without the use of halogenated organic compounds or preparations containing such compounds. Hydrocarbon-containing and other halogen-free solvents may only be used on the basis of good professional practice for pre- and post-spotting tasks.

Compliance Verification

The applicant shall declare compliance with the requirement in Annex 1.

3.2.3 General Exclusion of Substances with Certain Properties

In order to protect environment and human health no hazardous substances or substances of very high concern may be contained in concentrations ≥ 0.10 percent in the washing and cleaning agents and auxiliaries used (substances and mixtures). Where it is impossible to obtain

⁶ Richtlinie für Krankenhaushygiene und Infektionsprävention (Guidelines for hospital hygiene and infection prevention), Robert Koch-Institute (editor) - Date of publication: 11/2019, Publishing House: Elsevier, Urban & Fischer, Munich

Arbeitsstättenverordnung (ArbStättV) (Workplace Ordinance), Federal Law Gazette I No 44, dated August 24, 2004, p. 2179

information on the substances contained in mixtures, e.g. of fragrances, the classification rules for mixtures shall apply.

- a) Substances of very high concern (SVHC) identified in accordance with Article 57 of Regulation (EC) No 1907/2006 and included on the Candidate List for inclusion in the Annex listing substances subject to authorisation in accordance with Article 59 of that Regulation shall not be used. Contamination of the substances used with substances that meet the above criteria shall not be permitted. It is the applicant's duty to take the latest updates of the Candidate List into account.
- b) Substances which according to the criteria of Regulation (EC) No 1272/2008 are assigned to one of the hazard statements listed in Table 2 below or meet the criteria for such classification.

Table 1: Restrictive Hazard Classifications and their Assignment to the Categories

Table 1. Restrictive Hazard	Classifications and their Assignment to the Categories			
EC Regulation 1272/2008 (CLP Regulation)	Statement			
Toxic Substances				
H300	Fatal if swallowed			
H301	Toxic if swallowed			
H304	May be fatal if swallowed and enters airways			
H310	Fatal in contact with skin			
H311	Toxic in contact with skin			
H330	Fatal if inhaled			
H331	Toxic if inhaled			
EUH070	Toxic by eye contact			
H370	Causes damage to organs			
H371	May cause damage to organs			
H372	Causes damage to organs through prolonged or repeated exposure			
H373	May cause damage to organs through prolonged or repeated exposure			
Carcinogenic, mutage	nic and reprotoxic substances:			
H340	May cause genetic defects			
H341	Suspected of causing genetic defects			
H350	May cause cancer			
H350i	May cause cancer by inhalation			
H351	Suspected of causing cancer			
H360F	May damage fertility			
H360D	May damage the unborn child			
H360FD	May damage fertility. May damage the unborn child			
H360Fd	May damage fertility. Suspected of damaging the unborn child			
H360Df	May damage the unborn child. Suspected of damaging fertility			
H361f	Suspected of damaging fertility			
H361d	Suspected of damaging the unborn child			
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child			
H362	May cause harm to breast-fed children			
Substances Hazardous to the Aquatic Environment				
H400	Very toxic to aquatic life.			

EC Regulation 1272/2008 (CLP Regulation)	Statement		
H410	Very toxic to aquatic life with long-lasting effects.		
H411	Toxic to aquatic life with long-lasting effects.		
H412	Harmful to aquatic life with long lasting effects.		
H413	May cause long lasting harmful effects to aquatic life.		
Other Health and Environmental Effects			
H420	Harms public health and the environment by destroying ozone in the upper atmosphere		
Sensitizing Substances			
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled		
H317	May cause an allergic skin reaction		

The criterion shall not apply to substances or mixtures whose properties change during processing (loss of bioavailability, chemical modification) in a way that removes the hazard in question.

Divergences: The following substances or mixtures shall be exempt from the criterion:

EC Regulation 1272/2008 (CLP Regulation)	Statement
Surfactants (*)	H400 Very toxic to aquatic life H412 Harmful to aquatic life with long lasting effects
Enzymes (**)	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
Liizyiiles (· ·)	H317 May cause an allergic skin reaction
Proteases (e.g. Subtilisin)	H400 Very toxic to aquatic life H411 Toxic to aquatic life with long lasting effects
NTA as an impurity in MGDA and GLDA (***)	H351 Suspected of causing cancer
ε-phthalimido-peroxy- hexanoic acid (PAP), used as a bleaching agent in a maximum concentration of 0.6g /kg of laundry	H400 Very toxic to aquatic life H412 Harmful to aquatic life with long lasting effects
Peracetic acid/hydrogen peroxide	H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects H412 Harmful to aquatic life with long lasting effects
Fragrances	H412 Harmful to aquatic life with long lasting effects

^(*) This also applies to impurities from the starting materials

Compliance Verification

The applicant shall declare compliance with the requirements in Annex 1 and present copies of the Safety Data Sheets together with a detailed declaration from the manufacturer of washing and cleaning agents confirming compliance with this criterion in Annex 4. Such declaration from the manufacturer of washing and cleaning agents shall include the obligation to explicitly inform

^(**) Including stabilizers and other auxiliary substances in the preparations.

^(***) In concentrations lower than 0.2% in the raw material as long as the total concentration in the final product is lower than 0.10%.

the user of the Blue Angel ecolabel if the classification of ingredients changes and additions to the Candidate List have been made that conflict with the requirements for the Blue Angel. The Safety Data Sheets must not be older than two years. In the case of changes to the Candidate List the applicant shall within one month after receiving the modified data sheet from the manufacturer of washing and cleaning agents inform RAL gGmbH of the non-conformity with this criterion. If the industrial washing and cleaning agents used have been awarded the EU Ecolabel for industrial and institutional laundry detergents these requirements shall be considered met. The applicant or the manufacturer of washing and cleaning agents, respectively, shall submit a corresponding valid certificate.

3.2.4 Specific Exclusion of Substances

Only washing and cleaning agents (substances and mixtures) may be used during the washing process that do not contain the following substances in concentrations $\geq 0.10\%$:

- Alkylphenol ethoxylates (APEOs) and their derivatives
- EDTA (ethylenediaminetetraacetic acid) and its salts
- DTPA (diethylenetriaminepentaacetic acid) and its salts
- Inorganic phosphates (*) (e.g. mono-, di-, tri-, poly-phosphoric acid and their salts)
- Reactive chlorine compounds (e.g. Hypochlorit)
- Borates and perborates
- Perfluorinated organic compounds (PFCs)
- Halogenated hydrocarbons
- Aromatic hydrocarbons
- Triclosan
- 3-iodo-2-propynyl-butylcarbamate
- Glutaraldehyde
- Quaternary organic ammonium compounds that are not readily biodegradable
- Formaldehyde and formaldehyde releasers(**), e.g. (INCI designation):
 - 5-bromo-5-nitro-1,3-dioxane
 - Diazolidinyl urea
 - Sodium hydroxymethylglycinate
 - Dimethylol glycol
 - Dimethylol urea
 - DMDM hydantoin
 - Quaternium-15
 - Tetramethylol glycoluril
- Nitro musk and polycyclic musk compounds, such as:
 - Musk xylene: 5-tert-butyl-2,4,6-trinitro-m-xylene,
 - Musk ambrette: 4-tert-butyl-3-methoxy-2,6-dinitrotoluene,
 - Musk moskene: 1,1,3,3,5-pentamethyl-4,6-dinitroindane,
 - Musk tibetene: 1-tert-butyl-3,4,5-trimethyl-2,6-dinitrobenzene,
 - Musk ketone: 4'-tert-butyl-2',6'-dimethyl-3',5'-dinitroacetophenone,
 - HHCB (1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-(g)-2benzopyrane),
 - AHTN (6-acetyl-1,1,2,4,4,7-hexamethyltetralin)
- Nano silver

Commission Decision (EU) 2017/1219 of 23 June 2017 establishing the EU Ecolabel criteria for industrial and institutional laundry detergents

- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
- Atranol (2,6-Dihydroxy-4-methylbenzaldehyde)
- Chloratranol (3-Chloro-2,6-dihydroxy-4-methyl-benzaldehyde)
- Rhodamine B
- Microplastics
- (*) Except for impurities or stabilisers in concentrations lower than 1.0% in the raw material and a total concentration in the final product lower than 0.010%.
- (**) Except for impurities of formaldehyde in surfactants based on polyalkoxy compounds up to a concentration of 0.010 weight percent in the ingredient.

Compliance Verification

The applicant shall declare compliance with the requirements in Annex 1 and submit copies of the Safety Data Sheets together with a detailed declaration from the manufacturer of washing and cleaning agents confirming compliance with this criterion in Annex 4. The Safety Data Sheets must not be older than two years. If the industrial washing and cleaning agents used have been awarded the EU Ecolabel for industrial and institutional laundry detergents ((EU) 2017/1219 product group 039) these requirements shall be considered met. The applicant or the manufacturer of washing and cleaning agents, respectively, shall submit a corresponding valid certificate.

3.2.5 Ban on Biocides

Biocidal products within the meaning of Regulation (EC) No 528/2012 must not be used in the washing process nor may they be used in the after-treatment of the textiles. Exceptions to this are biocidal products for disinfecting textile cleaning on the basis of percarbonate, peracetic acid and/or hydrogen peroxide.

Compliance Verification

The applicant shall confirm compliance with the requirement in Annex 1.

3.3 Requirements for Water, Wastewater and Energy Consumption

3.3.1 Instruction to Use Soft Water for Washing

To minimise the use of surfactants, washing is to be done with soft water.

Compliance Verification

The applicant shall confirm compliance with the requirement in Annex 1.

3.3.2 Fresh Water Consumption

Fresh water consumption of laundries must not exceed 6 m³ per ton of dry fabric towel rolls.

Compliance Verification

The applicant shall confirm compliance with the requirement in Annex 1 and indicate the average consumption or present corresponding records.

3.3.3 Wastewater

The resulting wastewater load which carries not only the released dirt particles but also washing, cleaning and finishing agents must meet the requirements for indirect dischargers set forth in the German Abwasserverordnung (Wastewater Ordinance) or the respective Indirect Discharger Ordinances of the Federal States or the municipal bylaws.

Compliance Verification

The applicant shall confirm compliance with the requirement in Annex 1 and submit the relevant permits.

3.3.4 Washing Process

Water and energy consumption data (in kWh/kg or L/kg of washed laundry) shall - wherever possible - be provided together with the key parameters (attachment). Alternatively, environmental or sustainability reports according to ISO 14001 or EMAS reports may be submitted.

Compliance Verification

The applicant shall submit, attached to the application, a declaration from the machine manufacturer or the laundry or an environmental or sustainability report according to ISO 14001 or EMAS.

3.3.5 Laundry Drying Process

The energy consumption data (in kWh/kg of washed laundry) per laundry-drying process shall be provided together with the key parameters (attachment). Alternatively, environmental or sustainability reports according to ISO 14001 or EMAS reports may be submitted.

Compliance Verification

The applicant shall submit, attached to the application, a declaration from the machine manufacturer or the laundry or an environmental or sustainability report according to ISO 14001 or EMAS.

3.4 Packaging

Additional packaging shall be avoided. Returnable packaging and returnable transport systems shall preferably be used, when not in conflict with customer requirements.

Compliance Verification

The applicant shall specify the returnable packaging and returnable transport systems and submit a description and a photo of the packaging, if any, and confirm compliance with the requirement in Annex 1.

3.5 Outlook

The following aspects are to be examined and discussed within the context of the next revision of the criteria for this ecolabel:

- Examination regarding the extent to which cotton from certified organic farming can be used and the possibility to include criteria for other fibres used.
- Examination regarding the extent to which water and energy consumption data can be incorporated.
- Examination regarding the extent to which the concentration limits of substances mentioned under the specific exclusion of substances can be further lowered.

4 Applicants and Parties Involved

Suppliers of systems under para. 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, 2029.

They shall be extended by periods of one year each, unless terminated in writing by March 31, 2029 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 (supplier of systems)
- Brand/trade name, product description
- Distributor (label user), i.e. the above-mentioned marketing organisations.

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Appendix A Cited legislations and standards, literature

- [1] Official Journal of the European Union, 2011, COMMISSION RECOMMENDATION of 18 October 2011 on the definition of nanomaterial (2011/696/EU), English: https://eur-lex.eu-ropa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:275:0038:0040:EN:PDF
- [2] Arbeitsstättenverordnung: ArbStättV, (Workplace Ordinance) Federal Law Gazette I, No 44 of 24 August 2004, p. 2179
- [3] DIN EN 13569:2001-12 Cabinet roller towels Performance requirements and processing; German version EN 13569:2001
- [4] ECHA, 2020, Committee for Risk Assessment (RAC) and Committee for Socio-economic Analysis (SEAC), Annex to Background Document to the Opinion on the Annex XV dossier proposing restrictions on intentionally added microplastics. https://echa.eu-ropa.eu/documents/10162/6ba4eedb-273c-6806-492e-91ecb9df50cf
- [5] Guidance for Identification and naming of substances under REACH and CLP, Version 2.1 https://echa.europa.eu/documents/10162/23036412/substance id de.pdf
- [6] Richtlinie für Krankenhaushygiene und Infektionsprävention (Guidelines for hospital hygiene and infection prevention), Robert Koch-Institute (editor) Date of publication: 11/2019, Publishing House: Elsevier, Urban & Fischer, Munich
- [7] COMMISSION DECISION (EU) 2017/1219 of 23 June 2017 establishing the EU Ecolabel criteria for industrial and institutional laundry detergents
- [8] 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 (CLP Regulation)
- [9] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 16 December 2008 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.