BLUE ANGEL

The German Ecolabel

Resilient floor coverings and skirting

DE-UZ 120

Basic Award Criteria

Edition January 2025

Version 2

The Environmental Label is supported by the following four institutions:

Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

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

Umwelt Bundesamt

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.

Jury Umweltzeichen

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.

RAL gGmbH

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, Nuclear Safety and Consumer Protection, 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

Resilient floor coverings can have negative impacts on the environment across the whole life cycle of the product. Therefore, the requirements for the award of the environmental label focus not only on the substances and materials used in the manufacturing process but also on the period of use, the disposal of used floor coverings and the packaging materials used for the transportation of new floor coverings.
As these floor coverings usually cover large indoor surfaces, it is also important that these products have the lowest possible emissions from an environmental and health perspective and in the interests of the user. The environmental label is designed for the labelling of low-emission products. The professional installation of the floor covering and the use of other low-emission products within the entire flooring structure (e.g. floor covering adhesives and other installation materials according to DE-UZ 113, sealants according to DE-UZ 123) also play an important role in environmental and health protection.
In order to evaluate the emissions from floor coverings, the design of these Basic Award Criteria has been based on the evaluation procedure developed by the Committee for Health-Related Evaluation of Building Products – a committee of experts from environmental and health authorities at a federal government and state level.

1.3 Objectives of the Environmental Label

The environmental label for low-emission floor coverings identifies products that – above and beyond the legal regulations:

- are manufactured using substances and materials that place less burden on the environment,
- are safe and do not pose a risk to health in the living environment,
- do not contain any harmful substances that have a detrimental impact during the recycling process and
- promote the replacement of primary materials with secondary materials during their production.

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

1.4 Definitions

Resilient floor coverings and skirting: Based on DIN EN 12466, the following definitions apply:

- Floor covering: prefabricated product in sheet or tile form which can be used to cover a floor from wall to wall.
- Resilient: ability to recover after a certain level of compression.
- Skirting: prefabricated product in the form of boards, which is mounted in the transition from the floor covering to the wall.

Constituent components: Substances added to the product as such or as part of a mixture in order to achieve or influence certain product properties and those required as chemical cleavage products for achieving the product properties. This does not apply to residual monomers that have been reduced to a minimum.

Post-consumer materials (PCR materials) from floor coverings: Materials arising during installation and application processes primarily in the construction sector, which are no longer suitable for their intended purpose (as a construction material, e.g. as a floor covering) when they are cut (residual cuttings) and are considered waste because they do not have any other obvious purpose, or which arise when they are returned in the supply chain, e.g. returned floor covering or defective floor covering[1].

Post-consumer materials (PCR materials = post-consumer recycled plastic) according to DIN EN ISO 14021: Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the goods or service which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

Post-consumer recycled materials in the form of polypropylene (PP) according to DIN EN 15345 and polyethylene terephthalate (PET) according to DIN EN 15348: Materials sourced in each case from the dual system for waste collection (or comparable sources), as well as from the take-back of packaging along the supply chain in accordance with DIN EN ISO 16103. Production residues (e.g. cuttings from packaging film) are not considered recycled materials in the sense of these Basic Award Criteria.

[1] The certificates or labels are not always based on DIN EN ISO 14021

Product-type (PT) 6 – Preservatives for products during storage: Products used for the preservation of manufactured products, other than foodstuffs, feeding stuffs, cosmetics or medicinal products or medical devices by the control of microbial deterioration to ensure their shelf life.

SVHC: Substance of very high concern.

TSVOC: Sum of all concentrations of volatile organic compounds. Sum of all individual substances ≥ 5 µg/m³ in the retention range > C16 – C22

TVOC: Sum of all concentrations of volatile organic compounds in the retention range C6 – C16

Virgin material: Original/new material

2 Scope

These Basic Award Criteria apply to resilient floor coverings designed for use as covering material in indoor environments (floor, skirting) and also to skirting boards.
In particular, these Basic Award Criteria apply to:

- Plastic floor coverings made of virgin material
- Plastic floor coverings made of recycled materials according to Paragraph 3.1.3
- Floor coverings made of natural and synthetic rubber
- Linoleum floor coverings (unless the product falls within the scope of DE-UZ 176)
- Cork floor coverings (unless the product falls within the scope of DE-UZ 176)
- Skirting made of plastic

The applicant must name the relevant product standard in Annex 1 to the contract.

The Environmental Label Jury can approve other resilient floor coverings on the recommendation of the German Environmental Agency.

3 Requirements

The products named under Paragraph 2 can be labelled with the ecolabel illustrated on the first page of these Basic Award Criteria if they fulfil the following requirements, whereby RAL gGmbH must be informed immediately about any changes with respect to the product's compliance with the requirements that occur during the application process and/or the period of use of the ecolabel.

3.1 Manufacturing

3.1.1 General substance requirements

Observance of European and German chemical law, as well as standard rules for the sector, is a prerequisite at the time of application and throughout the period of use of the ecolabel (REACH Regulation Annex XVII, POP Regulation Annex I, the German Ordinance on Banned Chemicals (ChemVerbotsV), Ozone Regulation, F-gas Regulation, the German Ordinance on Hazardous Substances (GefStoffV), VdL Guideline 01, Regulation 92/112/EWC, the 25th German Federal Immission Protection Ordinance (25th BImSchV), the Biocidal Products Regulation (BPR), the

German Directive for solvent-based paints and varnishes (ChemVOCFarbV), the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), the Product Safety Regulation (EU 2023/988), the European Construction Products Regulation (CPR), etc.).[2] The floor coverings must comply with the requirements in Annex 8 of the Technical Building Regulations (MVV TB). Resilient materials and their coatings (stains, primers, clear lacquers, covering lacquers, films, decorative paper, adhesives, etc. which are used directly in the production of the floor covering) may not contain any substances with the following properties as a constituent component[3]:

[1] Substances which are identified as particularly alarming under the European Chemicals Regulation REACH (1907/2006/EC) and which have been incorporated into the list drawn up in accordance with Article 59, Paragraph 1 of the REACH Regulation (so-called "list of candidates").[4]

[2] Substances which according to the criteria of Regulation (EC) No 1272/2008 (CLP Regulation) are assigned the following hazard classes and categories or which meet the criteria for such classification: [5,,6]

- Carcinogenic in categories Carc. 1A or Carc. 1B
- Germ cell mutagenic in categories Muta. 1A or Muta. 1B
- Reprotoxic (teratogenic) in categories Repr. 1A or Repr. 1B
- Acute toxicity (poisonous) in categories Acute Tox. 1, Acute Tox. 2 or Acute Tox. 3
- Specific target organ toxicity in categories STOT SE 1 or STOT RE 1
- Hazardous to water[7] in categories Aquatic Acute 1, Aquatic Chronic 1, Aquatic Chronic 2 or Aquatic Chronic 3

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2 If substance restrictions from other regulations also apply to the specific product, these also need to be observed.

3 Substances classified as carcinogenic in category 1A and 1B for which a threshold level can be defined for the sensitive end point where there is no longer any carcinogenic potential and for which an LCI value has been determined on this basis and is stated in Table 1 (see Section 6, AgBB) are exempt from this rule. These substances are treated the same as other VOC substances with LCI values (see evaluation of individual substances, AgBB).

4 If an ingredient is newly added to the list of candidates during the term of the Basic Award Criteria, the label holder must submit an informal notification within one month stating the name of the substance, its CAS or EC number and information on possible substitutes. The licence holder will then be given a deadline to substitute this ingredient.

5 The harmonized classifications and labellings of hazardous substances can be found in Annex VI, Part 3 of the CLP Regulation. Furthermore, a comprehensive classification and labelling inventory, which also includes all of the self-classifications of hazardous substances made by manufacturers, has been made available to the public on the website of the European Chemicals Agency (ECHA): classification and labelling inventory. The current version of the CLP Regulation (EC) No 1272/2008: https://www.reach-clp-biozid-helpdesk.de/DE/CLP/Rechtstexte/Rechtstexte_node.html at the time of application is valid. The label holder is obligated to take into account current developments with the CLP Regulation. If an ingredient is classified with one of the named hazard categories during the term of the Basic Award Criteria, the licence holder must submit an informal notification stating the name of the substance and its CAS or EC number and the new hazard category. The licence holder will then be given a deadline to substitute this ingredient.

6 Substances with other hazardous properties (i.e. CMR substances in category 2) are not excluded here but are instead restricted by the emissions evaluation (see Paragraph 3.2.1).

7 An exemption is made for monomers or additives that turn into polymers during the manufacture of varnish or are chemically (covalently) bound to the cured varnish layer, as long as their residual concentrations are below the classification limit for mixtures.

- Endocrine disruptors with a negative effect on human health in the categories ED HH 1 or ED HH 2[8]
- Endocrine disruptors with a negative effect on the environment in the categories ED ENV 1 or ED ENV 2[9]
- Persistent, bioaccumulative and toxic (PBT) or very persistent, very bioaccumulative (vPvB) characteristics[1]
- Persistent, mobile and toxic (PMT) or very persistent, very mobile (vPvM) characteristics[1]
- Hazardous to the ozone layer in category Ozone 1

[3] Substances that are classified in TRGS 9053 as:
- Carcinogenic (K 1A, K 1B)
- Mutagenic (M 1A, M 1B)
- Reprotoxic (R_F 1A, R_F 1B)
- Teratogenic (R_E 1A, R_E 1B);

The following are exempt from these rules:
- Process-related technically unavoidable impurities in concentrations below the classification thresholds for mixtures.
- Monomers or additives that turn into polymers during the manufacture of plastics or are chemically (covalently) bound to the plastic, as long as their residual concentrations are below the classification limit for mixtures.

In the case of non-constituent components (e.g. residual polymers and impurities), any substances of very high concern may not exceed 0.1% by mass in all product components. In addition, any recycled materials added to the product may not contain SVHC > 0.1% by mass.

Compliance verification

The applicant shall submit the schematic layout and composition of the product (not the recipe) as Annex 2 and submit verification of compliance with the building inspection requirements in Annex 8 of MVV TB. Verification can be provided in the form of a European Technical Assessment (ETA) with a declaration of performance or in the form of technical documentation produced by a Technical Assessment Body according to the European Construction Products Regulation (CPR). Furthermore, the applicant shall declare compliance with the requirements in Annex 1 to the contract according to DE-UZ 120.
If relevant information is not already available, the applicant shall submit a test report according to DIN 51012 Supplement 1:2024 "Screening of substances of very high concern (SVHC)" to verify that the SVHC content in the product and its components is ≤ 0.1% by mass.

[8] New hazard categories in the CLP Regulation, legally binding from 1 May 2025 at the latest for substances newly placed onto the market.
[9] New hazard categories in the CLP Regulation, legally binding for substances newly placed onto the market from 1 May 2025 at the latest and for existing substances on the market by 1 November 2026 at the latest

3.1.2 N-nitosamines

Carcinogenic N-nitrosamines according to TRGS 552 may not be detectable in rubber-based floor coverings (in an air sample according to CEN/TS 17985 that is taken 24 hours after the start of the emission test according to Paragraph 3.2.1 "Indoor air quality") (detection limit: 3.6 µg/kg, determination limit: 11 µg/kg).

Compliance verification

The applicant shall submit a test report[10] according to CEN/TS 17985 or alternatively according to the DIK Working Regulation "Methoden zur Bestimmung von N-Nitrosaminen in der Luft, Vulkanisaten und Vulkanisationsdämpfen" (Methods for determining N-nitrosamines in the air, vulcanized materials and vulcanized steam) (DIK = Deutsches Institut für Kautschuktechnologie, German Institute for Rubber Technology) carried out by one of the following accredited testing institutions (institutes equipped with a gas chromatography/thermal energy analyser (GC/TEA) for the analysis of carcinogenic N-nitrosamines). Other testing institutions who can carry out these analyses may be accepted if approved by the German Environment Agency):

- Deutsches Institut für Kautschuktechnologie e.V., Hannover
- SGS INSTITUT FRESENIUS GmbH, Taunusstein

3.1.3 Recycled materials

3.1.3.1 General

The manufacturer should strive to use recycled materials in the production of the floor covering/skirting. The following materials are approved:

- Waste wood in category A I according to the German Waste Wood Ordinance (Altholzverordnung – AltholzV)
- Recycled paper of grades 1.02 and 1.04 according to DIN EN 643
- Polyvinyl butyral (PVB) from the recycling of glass window panes (buildings and motor vehicles)
- Post-consumer recycled materials in the form of polypropylene (PP) according to DIN EN 15345 and polyethylene terephthalate (PET) according to DIN EN 15348
- Post-consumer materials (PCR materials) according to DIN EN ISO 14021
- Post-consumer materials (PCR materials) from floor coverings

Other materials may be accepted if approved by the German Environment Agency.
Production waste from the manufacture of the floor covering that is reused in the production process is not subject to the requirements in Paragraph 3.1.3 and the corresponding verifications are not required for these materials. This waste is not considered PCR materials.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 to the contract according to DE-UZ 120.

[10] This report may not be more than two years old at the time of application.

3.1.3.2 Special requirements for products containing post-consumer recycled plastic

Resilient floor coverings containing post-consumer recycled materials in the form of polypropylene (PP) according to DIN EN 15345 and polyethylene terephthalate (PET) according to DIN EN 15348 (sourced in each case from the dual system for packaging waste collections, the take-back of packaging along the supply chain in accordance with DIN EN ISO 16103, residual cuttings and returned floor covering from construction sites) to which recycled materials from the stated sources is added during production must comply with the following requirements.

- Only PP or PET plastics are permitted.
- The raw material (PP and PET) must have been subjected to a washing process by the recycling company that reliably ensures that any foreign matter stuck to the plastic and/or any residual contents are sufficiently removed so that no odours can arise.
- An odour test according to VDA 270 must be carried out on the cleaned raw material and a pi value ≤ 3 must be achieved. The test must be carried out according to variant C (upholstery, insulating materials, films, foam materials, carpets and other materials used on large surfaces). Variant 1 should be selected for the storage of the samples. This test must be repeated every 3 months.

- The following purity requirements apply to PP and PET:

  For PP:
  - PP content > 80% (DSC analysis according to DIN EN ISO 11357)
  - PE content < 20% (DSC analysis according to DIN EN ISO 11357)
  - Other plastics < 2% (DSC analysis according to DIN EN ISO 11357)
  - Sink-float density separation method in water: < 1% sink fraction
  - Ash content < 5% (ash residue according to DIN EN ISO 3451-1)

  For PET:
  - PET content > 95% (DSC analysis according to DIN EN ISO 11357)
  - Other plastics < 5% (DSC analysis according to DIN EN ISO 11357)
  - PVC < 0.1%
  - Sink-float density separation method in water: < 1% float fraction
  - Ash content < 3% (ash residue according to DIN EN ISO 3451-1)

The origin and composition of the PCR materials (PCR = post-consumer recycled plastics) added to the product must be verified by the applicant in the form of a certificate (including a report) from the recycling company in accordance with the EuCertPlast certification scheme, the RecyClass certification scheme (for "Recycling Process"), the Global Recycled Standard (GRS) or ISCC plus (with calculated and plausibly justified verification of the proportion of post-consumer plastics used). The certificate must clearly indicate that the materials are PCR plastic (recycled).
The rules in DIN EN 15343 "Plastics recycling traceability and assessment of conformity and recycled content" must be observed, and the calculated and plausible verification of the proportion of recycled materials in accordance with DIN EN 14021 must be submitted.

Floor coverings that contain the following PCR materials are excluded from certification with the Blue Angel:

- PCR materials that contain a SVHC on the list of candidates above a threshold of 0.1% by mass
- PCR materials that contain halogenated blowing agents or halogenated flame retardants
- Used tires

The recycled materials added to the product must not exceed a cumulative concentration of 100 milligrams per kilogram of iron, cadmium, mercury and chromium. To ensure that this is the case, the recycled materials added to the product must be analysed using energy-dispersive X-ray fluorescence spectrometry. Each batch must be analysed three times, whereby the average value must be used for verifying compliance with this requirement. The measurements must be carried out based on DIN 51418-2. In the case of chromium (VI), the applicant must submit a test report according to DIN EN ISO 17075 or DIN EN ISO 15192:2022-01 verifying that chromium (VI) could not be detected (detection limit 3 mg/kg).

Compliance verification

The applicant shall submit the EuCertPlast certificate or RecyClass certificate (for "Recycling Process") according to the Global Recycled Standard (GRS) or ISCC plus (with calculated and plausibly justified verification of the proportion of post-consumer plastics used) from the recycling company with the application. The certificate shall be submitted at the time of application and then annually at the latest one year after the issuing date of the previous confirmation. The recurring test and annual confirmation must cover consecutive time periods without any gaps.

The washing process shall be confirmed by submitting a declaration including a precise description of the process (Annex 3).

The applicant shall enclose a suitable test report for the odour test according to VDA 270 with the application. The applicant shall also submit the reports for the follow-up tests to RAL gGmbH on at least an annual basis. If the odour limit is exceeded in one of the quarterly follow-up tests, the applicant is obligated to inform RAL gGmbH of this fact immediately and to take suitable measures.

The purity measurements must be carried out continuously by the supplier of the recycled plastic.

The proportion of recycled plastics added to the product must be stated on the product packaging and this information must be easy to find for end consumers. The applicant shall also state the composition of the recycled materials in Annex 1 and verify compliance with the purity requirements according to Paragraph 3.1.3.2.

The results of the heavy metal tests must be submitted to RAL gGmbH on at least an annual basis. If a batch does not pass this test, it cannot be used and RAL gGmbH must be informed.

3.1.4 Plasticisers

No plasticising substances from the group of phthalates or group of organophosphates may be added during production of the floor covering/skirting.

Compliance verification

The applicant shall verify that phthalates have not been added to the product by submitting a test report in accordance with EN ISO 16181-1:2021[10] (substances to be tested according to Table A.1, Annex A of the standard). The absence of organophosphates is to be verified by a manufacturer's declaration that no plasticizers containing organophosphates have been used (Annex 4).

If phthalates are detected as impurities, their total proportion in the floor covering may not exceed 0.1% by mass.

This test obligation does not apply to linoleum or floor coverings made out of natural rubber or PE/PP/PET. For these products, a manufacturer's declaration is sufficient to verify compliance with this requirement (Annex 4).

3.2 Use

3.2.1 Indoor air quality

Based on the "Health-related Evaluation Procedure for Volatile Organic Compounds Emissions (VOC and SVOC) from Building Products" (AgBB) developed by the Committee for Health-Related Evaluation of Building Products, products according to Paragraph 2 must not exceed the emission values in Table 1 in the test chamber. For an average-sized living room with an air exchange rate of 0.5/h, the requirements are designed to limit the contribution made by floor coverings to the VOC content in the indoor air after 28 days to 300 µg/m³.

Table 1: Emission requirements

Compound or substance	3rd day	Final value (28th day)
Total organic compounds within the retention range $C_6 - C_{16}$ (TVOC)	≤ 1000 µg/m³	≤ 300 µg/m³
Total organic compounds within the retention range > $C_{16} - C_{22}$ (TSVOC)	-	≤ 30 µg/m³
Carcinogenic substances[11]	≤ 10 µg/m³ **total**	≤ 1 µg/m³ **per individual substance**
Total VOC without LCI[12]	-	≤ 100 µg/m³
R value[13]	-	≤ 1.0
Formaldehyde	-	≤ 60 µg/m³ (0.05 ppm)

[11] Substances classified in accordance with Paragraph 3.1.1 "General substance requirements" as carcinogenic 1A or 1B according to the CLP Regulation or as K1 and K2 according to TRG 905

[12] LCI = Lowest Concentration of Interest; see AgBB evaluation procedure

[13] R = total of all quotients (Ci / LCIi) < 1.0 (where Ci = substance concentration in the chamber air, LCIi = LCI value of the substance), see AgBB evaluation procedure

The measurements must be carried out in accordance with DIN EN 16516. The test can be terminated at an early stage (at the earliest on the 7th day after preparing the test specimen) if the permissible emission values for the 28th day have been reached early and no significant increase in the concentration of any of the identified substances has been observed in comparison to the measurement on the 3rd day. The odour emission test according to Paragraph 3.2.2 should be carried out in combination with the test for indoor air quality.
The floor covering and skirting must be tested in accordance with the requirements in DIN EN 16516, whereby the load for skirting is 0.05 m²/m³. The applicant shall submit a test report according to the DIN EN 16516 standard [Section 10] verifying compliance with this requirement. The test report must be produced by a testing institution recognised for this test by BAM (Bundesanstalt für Materialforschung und Prüfung (Federal Institution for Material Research and Testing) or alternatively by a testing institution accredited according to ISO/IEC 17025:2017, which is listed in the NANDO database as having horizontal technical competence for EN 16516, or by a testing institution that has successfully participated in proficiency tests (round robin tests) using the testing method from an accredited provider of proficiency test according to DIN EN ISO/IEC 17043.[14]
The test to determine the quality of the indoor air must be repeated every two years[15]. The results of the recurring tests must be submitted to RAL gGmbH without request.

Compliance verification

The applicant shall submit a test report10 according to the DIN EN 16516 standard for every product group 17 to verify compliance with this requirement. The test report must be produced by a testing institution recognised for this test by BAM (Bundesanstalt für Materialforschung und Prüfung (Federal Institution for Material Research and Testing)[16]. The format of the test report is based on DIN EN 16516 [Section 10].

3.2.2 Odour testing

Testing of the odour characteristics should be carried out in accordance with DIN ISO 16000-28 together with the emission test for Paragraph 3.2.1 (Indoor air quality), whereby the same criteria for an early termination of the test apply. The tested floor covering should not exceed an odour intensity of 7 pi after 28 days. If the test result is 8 pi, it is permitted to carry out another test on the next day. If a value of 7 pi or lower is achieved, the product can be advertised as being "low odour". If the product is advertised as being "low odour", the applicant must carry out follow-up tests at least every two years and submit the test results to RAL gGmbH on request. The application will not be rejected if the product exceeds the limit value for this test, but the applicant may not advertise the product as being "low odour". The data generated in these tests will be used to define future limit values.

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[14] The applicant must confirm that the testing institution is accredited according to DIN EN ISO/IEC 17025 and the testing field, procedures and specifications used for those tests carried out to produce all of the required test results are part of this accreditation.
[15] This two year cycle applies to the emission test.
[16] The current list of recognised testing institutions has been published at https://www.blauer-engel.de/sites/default/files/2024-06/Pruefinstitute-d-2024-06-03.pdf.

Compliance verification

The applicant shall submit a test report10 in accordance with DIN ISO 16000-28 in combination with VDI 4302 for the initial test. If requested by RAL gGmbH, the applicant shall submit test reports in accordance with DIN ISO 16000-28 for the follow-up tests for every product group[17] .

3.2.3 Fitness for use

The floor covering and skirting must fulfil the usual quality requirements with respect to fitness for use. They must satisfy the requirements in the respective product standard.

Compliance verification

The applicant shall declare compliance with the requirements in Annex 1 to the contract according to DE-UZ 120.

3.3 Special requirements

3.3.1 Halogens

No halogenated organic compounds may be used in the manufacture of the resilient floor coverings/skirting (e.g. as a binding agent, flame retardant).

Compliance verification

The applicant shall submit a test report10. The contents of the halogens fluorine, chlorine and bromine must be determined using bomb calorimetry combustion and detection of the corresponding anions in accordance with DIN EN ISO 10304-1 and the proportion of tolerable impurities may not exceed 1000 mg/kg.

3.3.2 Flame retardants

If the use of flame retardants is necessary due to fire protection requirements, the following may be used: inorganic ammonium phosphate (diammonium phosphate [CAS no. 7783-28-0], ammonium polyphosphate [CAS no. 68333-79-9], etc.), other dehydrating minerals (aluminium hydroxide [CAS no. 21645-51-2] or magnesium hydroxide [CAS no. 1309-42-8]), melamine polyphosphate[18] (MPP) [CAS no.: 218768-84-4] or expandable graphite [CAS no. 12777-86-6; 90387-90-9]. Melamine and other melamine derivatives may not be used as flame retardants.

Other flame retardants may be approved by the German Environmental Agency on application.

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[17] Based on DIN EN 14041 "Resilient, textile and laminate floor coverings - Essential characteristics", a product group is a series of products within the limits of variability of the product parameters (set by the manufacturer or a technical specification) and, if applicable, of the use-related parameters with respect to which the specified safety-related properties do not change (i.e. they do not deteriorate in terms of quality). With respect to the Blue Angel, the safety-related properties include the emission behaviour. A product group includes products of identical material composition.

[18] If melamine polyphosphate (MPP) [CAS no: 218768-84-4] is reclassified in chemical law, this exemption will be reconsidered. A substitute for MPP will then be promptly recommended for manufacturers using this flame retardant.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 to the contract according to DE-UZ 120.

3.3.3 Biocides

Biocide finishing of the resilient floor covering is prohibited.
An exemption applies to biocides in the list of "approved in-can preservatives" that are exclusively designed for the pot preservation of aqueous coatings and adhesives (Product-type PT 6).

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 to the contract according to DE-UZ 120.

3.4 Declaration and consumer information

The declaration for the resilient floor covering/skirting and/or their packaging must comply with the requirements of DIN EN ISO 10874. The specific floor covering must also comply with the respective product standards.

The declaration must include the following:

- Identification of the manufacturer or supplier company,
- Product name and material,
- CE Marking,
- Colour/pattern as well as batch and roll number[19] (if applicable),
- Wear resistance class,
- The length, width and thickness or covered surface in the case of rolls or the dimensions in the case of tiles and the square meters of tile contained in one pack.

The following information and recommendations should be enclosed in an abridged version with the product. This should include a note about how the customer can obtain a more detailed version (e.g. by requesting it from the manufacturer, reference to the manufacturer's website).

- Installation instructions for the floor covering and skirting including recommendations for the use of low-emission floor covering adhesives, surfacers and fillers (e.g. according to DE-UZ 113) as well as primers (e.g. according to DE-UZ 12a), which will not increase the pollution of the indoor air by releasing formaldehyde and solvents etc. during their use.
- Cleaning and care instructions.
- Information on disposal (e.g. return and recycling possibilities).

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 to the contract according to DE-UZ 120 and submit the corresponding product information (e.g. technical data sheet).

[19] The applicant must inform RAL gGmbH about any changes to the design, coating, etc. without request.

3.5 Recycling and disposal

3.5.1 Return system (optional)

Participation in a cross-manufacturer return system for resilient floor coverings (voluntary). Optionally, the applicant can participate in an already existing return system or establish such a system in cooperation with other manufacturers. The system will take back residual cuttings and returned products from construction sites for reuse or proper recycling or disposal.

Compliance verification

The applicant shall declare compliance with the requirement (Annex 1) and enclose confirmation of participation in the relevant system and the corresponding information provided to customers as verification.

3.6 Environmental Product Declaration (EPD)

The product must have a valid EPD according to DIN EN 15804 issued by the manufacturer or the manufacturer's association.

Compliance verification

The applicant shall state the location where the EPD is published. If there is a long waiting time for verification of the EPD, a link to the declaration can be submitted. In this case, the applicant shall submit confirmation from the EPD supplier to verify receipt of the EPD application.

3.7 Energy efficiency and procurement of electricity from renewable sources

The applicant must produce an energy statement that includes information on the energy consumption at the plant used for the manufacture of the floor covering or skirting and the parameters used to control energy consumption. The applicant must monitor and control the processes with the aim of maintaining the most stable operation of the plant with a low energy consumption. The applicant must maintain an organisational structure to enable a continuous improvement in energy efficiency. 100% of the electricity consumed by the applicant should be sourced from renewable energies and/or highly efficient combined heat and power in the sense of Directive (EU) 2018/2001 and Directive 2012/27/EU.

Compliance verification

The applicant shall submit an energy statement that includes information on the energy consumption at the plant used for the manufacture of the floor covering and the parameters used to control energy consumption.
These verifications must be re-submitted every two years during the term of the contract on the use of the environmental label.

3.8 Advertising claims

The type of floor covering or skirting according to Paragraph 2 must be stated on the technical data sheet together with the product designation. Advertising messages must not include claims

in the sense of Article 25 (4) of the CLP Regulation (EC) No. 1272/2008 that could play down the risks such as e.g. "non-toxic", "non-harmful to health" or similar claims.

- Advertising claims that contain terms such as "Bio", "Eco", "Natural", "Fungal", "Anti-"[20] or "Nano" etc. as part of the name or description are not permitted.
- If the product complies with the requirement for the odour test in Paragraph 3.4, the applicant is permitted to advertise the floor covering/skirting with the claim "low odour".

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 to the contract according to DE-UZ 120 and submit the technical data sheet.

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, 2028.
They shall be extended by periods of one year each, unless terminated in writing by March 31, 2028 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.

[20] Special product characteristics (such as "anti-static", etc.) may be advertised after submitting a test report verifying compliance with the test standard for this product characteristic to RAL gGmbH.

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.

Appendix A H phrases applicable to the award of the environmental label

Hazard category	CLP Regulation (EC) No. 1272/2008 Hazard statements	
	H Phrases	**Wording**
Carcinogenic substances		
Carc. 1A	H350	May cause cancer.
Carc. 1B	H350	May cause cancer.
Carc. 1A, 1B	H350i	May cause cancer if inhaled.
Germ cell mutagenic substances		
Muta. 1A	H340	May cause genetic defects.
Muta. 1B	H340	May cause genetic defects.
		Reprotoxic (teratogenic) substances
Repr. 1A, 1B	H360D	May damage the unborn child.
Repr. 1A, 1B	H360F	May damage fertility.
Repr. 1A, 1B	H360FD	May damage fertility. May damage the unborn child.
Repr. 1A, 1B	H360Df	May damage the unborn child. Suspected of damaging fertility.
Repr. 1A, 1B	H360Fd	May damage fertility. Suspected of damaging the unborn child.
Acute toxicity substances		
Acute Tox. 1 Acute Tox. 2	H300	Fatal if swallowed
Acute Tox. 1 Acute Tox. 2	H310	Fatal in contact with skin
Acute Tox. 1 Acute Tox. 2	H330	Fatal if inhaled
Substances with specific target organ toxicity		
STOT SE 1	H370	Causes damage to organs.
STOT RE 1*	H372	Causes damage to organs through prolonged or repeated exposure.
Environmental hazards		
Aquatic. Acute 1	H400	Very toxic to aquatic life
Aquatic. chronic 1	H410	Very toxic to aquatic life with long-lasting effects
Aquatic. chronic 2	H411	Toxic to aquatic organisms with long-lasting effects
Aquatic. chronic 3	H412	Harmful to aquatic organisms with long lasting effects
Ozone 1	H420	Harms public health and the environment by destroying ozone in the upper atmosphere.
Endocrine substances		
ED HH 1	EUH380	May cause endocrine disruption in humans
ED HH 2	EUH381	Suspected of causing endocrine disruption in humans
ED ENV 1	EUH430	May cause endocrine disruption in the environment.
ED ENV 2	EUH431	Suspected of causing endocrine disruption in the environment.

Hazard category	CLP Regulation (EC) No. 1272/2008 Hazard statements	
	H Phrases	**Wording**
PBT substances		
PBT	EUH440	Accumulates in the environment and living organisms including in humans.
vPvB	EUH441	Strongly accumulates in the environment and living organisms including in humans.
PMT substances		
PMT	EUH450	Can cause long-lasting and diffuse contamination of water resources.
vPvM	EUH451	Can cause very long-lasting and diffuse contamination of water resources.

* If the classification and toxicological evaluation of the substance is based on the classification of the respirable fraction of the substance (dusts) and does not relate to the substance in general, classification as STOT RE 1 does not represent a criterion for exclusion in accordance with Paragraph 3.1 "Exclusion of Substances".

Appendix B List of approved in-can preservatives (PT6)

The list of “approved in-can preservatives” is published separately under "Technical Documents” (https://www.blauer-engel.de/de/zertifizierung/technische-dokumente).

Appendix C Biotest

The biotest is published separately under "Technical Documents" (https://www.blauer-engel.de/de/zertifizierung/technische-dokumente).

Appendix D Quoted laws and standards, literature: [21]

DIN 51418-2: 2015-03 X-ray spectrometry - X-ray emission and X-ray fluorescence analysis (XRF) - Part 2: Definitions and basic principles for measurements, calibration and evaluation of results

DIN CEN/TS 17985:2024-03 Construction products: Assessment of release of dangerous substances - Methods for the determination of N-nitrosamines in air samples derived by EN 16516; German version CEN/TS 17985:2023

DIN EN 643: 2014-11 Paper and board - European list of standard grades of paper and board for recycling, 11/2014.

DIN EN ISO 11357-1: 2017-02 Plastics - Differential scanning calorimetry (DSC) - Part 1: General principles (ISO 11357-1:2016); German version EN ISO 11357-1:2016

DIN EN 12466: 1998-06 Resilient floor coverings - Vocabulary, 06/1998.

DIN EN 14041: 1998-10 "Resilient, textile and laminate floor coverings - Essential characteristics"

DIN EN 15343:2008-02 Plastics - Recycled Plastics - Plastics recycling traceability and assessment of conformity and recycled content; German version EN 15343:2007

DIN EN 15804: 2022-03 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products; German version EN 15804:2012+A2:2019 + AC:2021

DIN EN 16516:2020-10 - Construction products: Assessment of release of dangerous substances - Determination of emissions into indoor air; German version EN 16516:2017+A1:2020

DIN EN ISO 3451-1: 2019-05 Plastics - Determination of ash - Part 1: General methods (ISO 3451-1:2019); German version EN ISO 3451-1:2019

DIN EN ISO 10304-1: 2009-07 Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate and sulfate (ISO 10304-1:2007); German version EN ISO 10304-1:2009

DIN EN ISO 10874: 2012-04 Resilient, textile and laminate floor coverings - Classification

DIN EN ISO 14021: 2016-07 Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) (ISO 14021:2016); German and English version EN ISO 14021:2016

[21] The latest version of the documents at the time of application is valid.

DIN EN ISO 15192: 2022-01 Soil and waste - Determination of Chromium(VI) in solid material by alkaline digestion and ion chromatography with spectrometric detection

DIN EN ISO 16103: 2005-09 Packaging - Transport packaging for dangerous goods - Recycled plastics material (ISO 16103:2005); German version EN ISO 16103:2005

DIN EN ISO 16181-1: 2019-10 - Footwear - Critical substances potentially present in footwear and footwear components - Part 1: Determination of phthalate with solvent extraction (ISO/DIS 16181-1:2019); German and English version prEN ISO 16181-1:2019

DIN EN ISO 17075: 2017-05 Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method

DIN EN ISO 18856: 2005-11 Water quality - Determination of selected phthalates using gas chromatography/mass spectrometry (ISO 18856:2004); German version EN ISO 18856:2005

DIN/TS 51012 - Screening of substances of very high concern (SVHC) - General principles
https://www.dinmedia.de/de/vornorm/din-ts-51012/312105975

DIN EN ISO/IEC 17025 - General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2017)
https://www.dinmedia.de/de/norm/din-en-iso-iec-17025/278030106

LkSG - Law on corporate due diligence obligations to avoid human rights violations in supply chains (German Act on Corporate Due Diligence in Supply Chains – Lieferkettensorgfalts-pflichtengesetz)
https://www.bmz.de/de/themen/lieferkettengesetz

Product Safety Regulation - Regulation (EU) 2023/988 of the European Parliament and of the Council of 10 May 2023 on general product safety, amending Regulation (EU) No 1025/2012 of the European Parliament and of the Council and Directive (EU) 2020/1828 of the European Parliament and the Council, and repealing Directive 2001/95/EC of the European Parliament and of the Council and Council Directive 87/357/EEC
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32023R0988

German Waste Wood Ordinance (Altholzverordnung – AltholzV): German ordinance on requirements for the recycling and
disposal of waste wood (Waste Wood Ordinance – AltholzV) of 15 August 2002 (BGBl. I p. 3302), which was last amended by Article 62 of the law from 29 March 2017 (BGBl. I p. 626).
https://www.gesetze-im-internet.de/altholzv/

CPR European Construction Products Regulation EU 305/2011
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:02011R0305-20210716

BPR Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products
https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:167:0001:0123:DE:PDF

CLP Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 concerning the classification, labelling and packaging of substances and mixtures
https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=celex:32008R1272

25th BImSchV – 25th ordinance for the implementation of the Federal Immission Protection Act
https://www.gesetze-im-internet.de/bimschv_25/

ChemBiozidDV - German ordinance on the notification and distribution of biocidal products and for the implementation of Regulation (EU) No 528/2012 (Biocidal law implementing ordinance - ChemBiozidDV)
https://www.gesetze-im-internet.de/chembioziddv/ChemBiozidDV.pdf

ChemBiozidMeldeV German ordinance on the notification of biocidal products pursuant to the German Chemicals Act (Biocide Notification Ordinance - ChemBiozidMeldeV) of 14 June 2011 (BGBl. I P. 1085) Date of issue: 14/06/2011
https://www.gesetze-im-internet.de/chembioziddv/

ChemVerbotsV - German ordinance on the prohibition and restriction of placing hazardous substances, preparations and goods on the market or for their sale in accordance with the German Chemicals Act (Chemicals Prohibition Ordinance - ChemVerbotsV)
https://www.gesetze-im-internet.de/chemverbotsv_2017/ChemVerbotsV.pdf

ChemVOCFarbV – Chemical directive limiting VOC emissions by restricting the sale of paints and varnishes containing solvents (Directive for solvent-based paints and varnishes - ChemVOCFarbV)
https://www.bmuv.de/fileadmin/Daten_BMU/Download_PDF/Gesundheit_Chemikalien/chem-vocfarbv.pdf

F-gas Regulation - Regulation (EU) 2024/573 of the European Parliament and of the Council of 7 February 2024 on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=OJ:L_202400573

GefStoffV – German ordinance on protection from hazardous substances (Hazardous Substances Ordinance – GefStoffV)
https://www.gesetze-im-internet.de/gefstoffv_2010/GefStoffV.pdf

German ordinance to amend the Hazardous Substances Ordinance and other occupational safety ordinances, Federal Law Gazette Part I, v. 04. December 2024, no. 384
https://www.recht.bund.de/bgbl/1/2024/384/VO.html

Ozone Regulation - Regulation (EC) No. 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer
https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:286:0001:0030:DE:PDF

POP Regulation - Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32019R1021

REACH 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)
https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=celex%3A32006R1907

VdL Guideline 01: Guideline on the declaration of paints, lacquers, varnishes, renders, fillers, primers and related products
https://www.wirsindfarbe.de/service-publikationen/vdl-richtlinien/richtlinie-zur-deklaration-von-lacken-farben-lasuren-putzen-spachtelmassen-grundbeschichtungsst

Council Directive 92/112/EEC of 15 December 1992 on procedures for harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium dioxide industry
https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=CELEX:31992L0112

TRGS 552 N-nitrosamine. Last amended in September 2018.
https://www.baua.de/DE/Angebote/Regelwerk/TRGS/TRGS-552

TRGS 614 Restrictions on use for azo dyes, which may release aromatic amines classified as carcinogens - German Pulp and Paper Association (Verband Deutscher Papierfabriken e.V., Bonn), "Ein Leistungsbericht 2020" (A Performance Report 2020)
https://www.baua.de/DE/Angebote/Regelwerk/TRGS/TRGS-614

TRGS 905 Directory of carcinogenic, mutagenic or teratogenic substances from the Committee for Hazardous Substances (AGS): TRGS 905. The CMR complete list published by the Institute for Occupational Safety and Health of the German Social Accident Insurance can also be used as a reference tool (amalgamation of the CMR substances according to the CLP Regulation and TRGS 905): CMR complete list.

Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC
https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:315:0001:0056:de:PDF

Directive (EU) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste
https://www.gesetze-im-internet.de/prodsg_2021/ProdSG.pdf

Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (Text with EEA relevance)
https://eur-lex.europa.eu/eli/dir/2018/2001/oj?locale=de

Directive 2019/904/EU of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32019L0904

AgBB evaluation procedure – Published on the website of the German Environment Agency:: https://www.umweltbundesamt.de/sites/default/files/medien/4031/dokumente/agbb_bewertungsschema_2024.pdf

DAKKS German Accreditation Body (DAkkS) - Testing and calibration laboratories: https://www.dakks.de/de/pruef-und-kalibrierlabore-din-en-iso-iec-17025.html

DIK Working Regulation "Methoden zur Bestimmung von N-Nitrosaminen in der Luft, Vulkanisaten und Vulkanisationsdämpfen" (Methods for determining N-nitrosamines in the air, vulcanized materials and vulcanized steam): DIK Working Regulation published in: R. Liekefeld, R.H. Schuster, G. Wünsch; Kausch. Gummi Kunstst., 1991, 44, 514

EuCertPlast – Certification scheme: http://www.eucertplast.eu

List of candidates – https://www.echa.europa.eu/de/candidate-list-table

MVV TB – Model Administrative Rules – Technical Building Regulations, DIBt Edition 2020/1; Official Notification 2021/1 (Edition: 19 January 2021) https://www.dibt.de/de/aktuelles/meldungen/nachricht-detail/meldung/mvv-tb-20201-veroeffentlicht

RecyClass certification scheme (for "Recycling Process") according to the Global Recycled Standard (GRS) or ISCC plus: https://www.eucertplast.eu or https://recyclass.eu/

VDA 270: Determination of the odour characteristics of trim materials in motor vehicles (Version 05/2022) - Group license, AGB (GTC) Art. 10, 2 - Language of the document German and English: https://www.vda.de/de/services/Publikationen/vda-270-bestimmung-des-geruchsverhaltens-von-werkstoffen-der-kraftfahrzeug-innenausstattung.html