



Basic Criteria for Award of the Environmental Label

Building Materials made primarily from Waste Glass

RAL-UZ 49



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RAL DEUTSCHES INSTITUT FÜR GÜTESICHERUNG UND KENNZEICHNUNG
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1 Preliminary Remarks

1.1 In co-operation with the Federal Minister for the Environment, Nature Conservation and Nuclear Safety, the Federal Environmental Agency and considering the results of expert hearings conducted by RAL the Environmental Label Jury has set up these Basic Criteria for Award of the Environmental Label. RAL, reg. assoc., has been entrusted with the award of the Environmental Label.

Upon application to RAL and on the basis of a Contract on the Use of the Environmental Label to be concluded with RAL the permission to use the Environmental Label may be granted for all products, provided that they comply with the requirements as specified hereinafter.

1.2 The purpose of awarding the Environmental Label to building materials and auxiliary building materials predominantly made from waste glass is to promote the reuse of glass wastes in the building and construction sector which are difficult to recycle because of their non-homogenous composition.

1.3 Definition

Waste glass according to para. 1.2 is residual glass arising outside applicant's firm and which - if not recycled - would have to be disposed of as waste, e.g. container glass from waste-glass collections, broken glass from the beverage industry, glass from flat-glass processing, etc. (external recycling of residual material for the purpose of waste avoidance).

Broken glass, glass wastes and rock wool wastes arising at applicant's production site(s) (internal recycling of residual material) shall not be considered as waste glass within the meaning of these Basic Criteria.

2 Scope

These Basic Criteria apply to building materials and auxiliary building materials for overground workings, such as, for example, heat insulation materials, building blocks, mortar for lightweight walls, plaster and building materials, ceiling slabs and lightweight concrete.

Excluded are glass wool and other glass fibre products which may contain or release fibre dusts which according to the criteria laid down in TRGS 905 are to be considered carcinogenic or suspected of causing cancer.

3 Requirements

The Environmental Label shown on page 1 may be used for the marking of products under paragraph 2, provided that they meet the following requirements:



- 3.1** The products must be made primarily from waste glass. They must not contain any screen glass.
- 3.1.1** The waste glass content of the finished product (building materials and auxiliary building materials) must be at least 51 weight per cent, **or**
- 3.1.2** in those cases where building materials are manufactured by the use of auxiliary building materials made from waste glass, the waste glass content of the finished product must be at least 70% by volume. Auxiliary building materials made from waste glass must fully substitute other auxiliary building materials serving the same purpose (e.g. expanded clay, expanded shale, sand and gravel).
- 3.2** The following substances¹ must not be added to the waste glass within the meaning of these Basic Criteria:
- 3.2.1** 1) Substances which are listed in Annex I to Directive 67/548/EEC² and which according to Section 4a, Ordinance on Hazardous Substances³ must be classified and marked as "very toxic" (T+), "toxic" (T), or "hazardous to the environment" (N);
substances which are classified as carcinogenic according to EC Category Carc.Cat.1, Carc.Cat.2 or Carc.Cat.3 or mutagenic according to EC Category Mut.Cat.1, Mut.Cat.2 or Mut.Cat.3 or reprotoxic according to EC Category Repr. Cat.1, Repr. Cat. 2 or Repr.Cat.3;
- 2) which are classified in TRGS 905⁴ as carcinogenic, mutagenic or reprotoxic;
3. which are classified in the MAK⁵ Value List as:
- cancerogenic working materials Category 1, 2 or 3;
 - germ-cell mutagenic Category 1, 2, 3A or 3B;
 - teratogenic working material in the column „pregnancy“ in group A or group B.
- 3.2.2** or which according to scientific knowledge must be classified in one of the categories under para. 3.1.2 either as carcinogenic, teratogenic or mutagenic or have sensitizing or other chronically damaging properties or which as such or as their impurities or

¹ Substance as defined in Section 3, No. 1, Chemicals Act, dated July 25, 1994

² Council Directive 67/548/EEC, dated June 27, 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of hazardous substances. Annex 1: Official Journal of the European Communities published in: Series of documents of the Federal Institute for Occupational Safety and Health - Regulations RW 23, „List of Hazardous Substances and Preparations under Annex I to Directive 67/548/EEC“ (continuous publication)

³ Publication of the revised version of the Ordinance on Hazardous Substances, dated October 18, 1999 (Official Law Gazette. I, p. 2059)

⁴ TRGS 905 - List of carcinogenic, mutagenic or reprotoxic substances (Edition: March 2001 -with subsequent amendments)

⁵ MAK and BAT Value List, Senate Commission on the Testing of Health-endangering Working Materials, Current Communication No. 38 (2002)



decomposition products are apt to cause considerable risk or considerable disadvantage for the public .

3.2.3 Exception :

Production-related impurities of substances under paras. 3.2.1 must not exceed 0.01 weight per cent in the fabricated materials.

Notwithstanding this, carcinogenic, mutagenic and reprotoxic substances shall be minimized in keeping with the latest technological findings.

3.3 Apart from that, substances¹⁾ listed in Annex I to Directive 67/548/EEC²⁾ and assigned at least one indication of danger according to Section 4, Ordinance on Hazardous Substances may only be contained in the finished product up to half the concentrations ($\leq 50\%$) which according to Directive 1999/45/EC⁶ does not result in the following classifications:

3.3.1 classified as harmful and assigned the symbol Xn and the indication of danger “harmful”;

3.3.2 classified as corrosive and assigned the symbol C and the indication of danger „corrosive“;

3.3.3 classified as irritant and assigned the symbol Xi and the indication of danger „irritant“.

Admitted by way of exception are glass wools classified as irritant because of the temporary mechanical irritation of skin (Xi, R 38: Irritating to skin).

3.4 The products under para. 2 must comply with the requirements set up by the construction supervising authority.

3.5 Manufacturers of products made of glass wool must include the following notes in the Technical Data Sheet as well as in the container text:

- Keep the working area as clean as possible. (e.g. careful handling of products and waste material).
- Wear loose fitting and well covering clothes. Wear appropriate gloves when needed.
- Persons with sensitive skin should use adequate protective cream or lotion (recommendation: Rinse off the dust first).
- Wear adequate protective glasses if there is excessive dust or during overhead work.
- Rinse off dust after work.

4 Compliance Verifications

4.1 The applicant shall declare compliance with the requirements under para. 3.1.

In addition to this, the applicant shall inform the

⁶ Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (Official Journal of the European communities, L 200, page 1)



Umweltbundesamt (Federal Environmental Agency)

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about the amounts of waste glass processed per year and used for the products marked with the Environmental Label.

- 4.2** The components of the products pursuant to para. 2 are to be listed under their trade names and chemical designations in weight per cent according to para. 3.1.1 or in per cent by volume according to para. 3.1.2, respectively. The applicant must submit Material Safety Data Sheets according to EC Directive 91/155/EEC.

Glass wool products made from waste glass must be accompanied by a test certificate that under the applicable classification system of TRGS 905 the fibres do not require classification as known to cause or suspected of causing cancer. Criteria for such classification are:

- Half-life after intratracheal installation of 2 mg of a fibre suspension of WHO fibres is ≤ 40 days;
- The carcinogenicity index KI is ≥ 40 .

The biopersistence of glass wool fibres can be determined by means of the intratracheal test in accordance with EU Protocol ECB/TM/27 rev. 7 (European Chemicals Bureau, Ispra).

The carcinogenicity index can be determined according to DIN 51001. For this purpose, the applicant shall submit test reports of GLP certified laboratories or testing institutes accredited according to DIN EN 45001.

- 4.3** The applicant shall prove compliance with the relevant construction regulations by submitting the necessary verifications for the products under para. 2.
- 4.4** The applicant shall submit a Technical Data Sheet, including product designation, range of application and short description.
- 4.5** The manufacturer of products made from glass wool applying for the Environmental Label shall submit the Technical Data Sheet as well as the container text for compliance with para. 3.5.

5 Applicants and the Parties Involved

- 5.1** Manufacturers of products under para. 2 shall be eligible for application.

- 5.2** Parties involved in the award process

- RAL to award the Blue Angel Eco-Label,
- the federal state where applicant's production site is located,
- Umweltbundesamt (Federal Environmental Agency) which, after signing of the contract, receives all data and documents submitted in application for the Blue



Angel in order to be able to proceed with the development of the Basic Award Criteria.

6 Use of the Environmental Label

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

6.2 Within the scope of such contract the applicant undertakes to comply with the requirements under paragraph 3 as long as applicant makes use of the Environmental Label.

6.3 Contracts on the Use of the Environmental Label are concluded to fix the terms for the marking of products under paragraph 2.

Such contracts shall run until December 31, 2010. They shall be extended by periods of one year each, unless terminated in writing by March 31, 2010 or by March 31 of the respective year of extension.

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

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

6.5 The Contract on the Use of the Environmental Label shall give the following particulars:

6.5.1 Applicant (Manufacturer)

6.5.2 Brand/trade name, type designation

6.5.3 Distributor (label user), i.e. the marketing organization pursuant to para. 6.4.

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C O N T R A C T

No.

on the Award of the Environmental Label

RAL, reg. assoc., as label awarding agency, and the firm of
(Manufacturer / User)
as applicant, conclude the following Contract
on the Use of the Environmental Label:

S P E C I M E N

1. Under the following conditions the applicant shall be entitled to use the Environmental Label for the labelling of the product / product group / project:
Building Materials made primarily from Waste Glass for "Brand/Trade Name".

This shall not include the right to use the Environmental Label as part of a brand.
Unless otherwise agreed, the Environmental Label shall only be used in the above given shape and colour and shall be marked at the bottom "Jury Umweltzeichen" (Environmental Label Jury). The entire inner surrounding text shall always be identical as regards size, form, thickness and colour of the letters and it shall be easy to read.
2. The Environmental Label according to para. 1 shall only be used for the above-mentioned product / product group / project.
3. If the Environmental Label is used for advertising purposes the applicant shall make sure that it is exclusively used in connection with the above-named product / product group / project for which the use of the Environmental Label has been granted and settled under this contract. The applicant shall be solely responsible for the way the label is used, above all, in advertising.
4. During the entire period of label use the product / product group / project to be labelled shall comply with all requirements and conditions for the use of the label as specified in the "Grundlage für Umweltzeichen-Vergabe **RAL-UZ 49**" (Basic Criteria for Award of the Environmental Label **RAL-UZ 49**), as amended. This shall also apply to the reproduction of the Environmental Label (including the surrounding text). Claims for damages against RAL, especially on the grounds of third party objections to the applicant's use of the label and the accompanying advertising shall be ruled out.
5. If the "Basic Criteria for Award of the Environmental Label" provide for checks by third parties the applicant shall bear the costs accruing in connection therewith.
6. Should the applicant himself or third parties find out that the applicant does not comply with the conditions as stipulated in paras. 2-5 he shall be liable to inform RAL and stop the use of the Environmental Label until the conditions are complied with again. Should the applicant be incapable of restoring the state required for the use of the label immediately or should the applicant seriously offend against this contract RAL may, if necessary, withdraw the Environmental Label and prohibit the applicant from using the label any longer. Claims for damages against RAL because of the withdrawal of the label shall be ruled out.
7. The Contract on the Use of the Environmental Label may be terminated for good reason.
Examples of good reasons are:
- unpaid contributions
- substantiated risk of injury and death.
In such case, applicant's continued use of the Environmental Label shall be prohibited.
The applicant shall not be entitled to bring a claim for damages against RAL (see above: paragraph 6, sentence 3).
8. The applicant undertakes to pay RAL an amount according to the "Beitragsordnung für das Umweltzeichen" (Schedule of Contributions for the Environmental Label), as amended, for the period of use.
9. According to the Basic Criteria for Award of the Environmental Label **RAL-UZ 49** this contract will run until **December 31, 2010**. It shall be extended by periods of one year each, unless terminated in writing by **March 31, 2010** or by March 31 of the respective year of extension. After the expiry of the contract the Environmental Label may neither be used for labelling nor for advertising purposes. This regulation shall not affect the products being still in the market.
10. Products / projects marked with the Environmental Label and the advertising for these products / projects may reach the consumer only when naming the company of the **(Applicant/Distributor)**.

Sankt Augustin, this ... day of20

Place, Date

RAL e.V.
Chief Manager

(Signature of authorized representative and corporate stamp)

RAL GERMAN INSTITUTE FOR QUALITY ASSURANCE AND CERTIFICATION

Founded 1925

Siegburger Straße 39, D-53757 Sankt Augustin



**Annex to the Contract
pursuant to RAL-UZ 49
Environmental Label for “Building Materials made
primarily from Waste Glass”**

**Please use
this form !**

Manufacturer (Applicant):

Distributor (Label User):

Brand/Trade Name :

Product Designation¹:

Applicant’s Statement

It is hereby stated that

- the waste-glass content of the finished product (building materials and auxiliary building materials) is at least 51 weight per cent,^{2,2}
- the waste glass content of the finished product is at least 70 Vol.-% for those building materials which are made by the use of auxiliary building materials made from waste glass,²⁾
- no screen glass is contained in the product.

The auxiliary building material made from waste glass fully substitutes the following auxiliary building materials serving the same purpose:

-
-
-

The Bundesamt für Wehrtechnik und Beschaffung (Federal Office for Defense Technology and Procurement) has registered the product under Supply Reg. No.³

¹ One Annex is to be completed for each different building material/auxiliary building material.

² Please delete what does not apply.

³ Products equipped with a Supply Reg.No. are reported by the Federal Environmental Agency to the Bundesmaterialkatalogisierungszentrale (Central Federal Office for Material Registration). Its information system kept for various procurement offices of the Federal Government lists these products with a special mark indicating that they have been awarded the Environmental Label. The Environmental Label has no influence on the issuance of a Supply Reg.No..



Annexes

- Recipe and Material Safety Data Sheets according to the EC 91/155/EEG pursuant to para. 4.2 of RAL-UZ 49
- Test report according to para. 4.2 of RAL-UZ 49
- Verifications proving compliance with constructional regulations as required under para. 4.3 of RAL-UZ 49
- Technical Data Sheet as required under paras. 4.4 and 4.5 of RAL-UZ 49
- Container text according to para. 4.5 of RAL-UZ 49

Place:

Applicant:

(Signature of authorized representative
and corporate stamp)

Date:



To the

Applicant

Check List

Re: Application for Award of the Environmental Label according to RAL-UZ 49 for "Building Materials made primarily from Waste Glass"

Dear Madam,
Dear Sir,

to make sure that your application for Award of the Environmental Label is processed without delay you are kindly requested to submit the following documents to RAL:

- Product-related informal application on the firm's letter-head paper indicating the federal state where applicant's factory is located that manufactures the product to be marked with the label.
- Fully completed „Annex to the Contract“ pursuant to RAL-UZ 49.
- Recipe and Material Safety Data Sheets
- Test Report on the determination of the carcinogenicity index
- Verifications proving compliance with the constructional regulations
- Technical Data Sheet (3 copies)
- Expected sales of the products to be marked with the Environmental Label during the year of application. This information is required only if, so far, no other contract on the Use of the Environmental Label according to RAL-UZ 49 has been concluded with RAL.