

The German Ecolabel
BLUE ANGEL



**Thermal Processes to Control
Ligniperdous Insects**

DE-UZ 57a

Basic Award Criteria
Edition January 2017
Version 4

The Environmental Label is supported by the following four institutions:



Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety

The Federal Ministry for the Environment is the owner of the label, defines the fundamental guidelines for the award of the Blue Angel ecolabel and appoints the Environmental Label Jury.



The German Environment Agency with its specialist department for "Ecodesign, Eco-Labeling and Environmentally friendly Procurement" acts as the office of the Blue Angel ecolabel. It develops the technical criteria including the required compliance verifications in cooperation with relevant interest groups.



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, churches, young people and the German federal states.



RAL gGmbH is the awarding body for the environmental label. It examines the applications submitted by companies for the use of the Blue Angel ecolabel and concludes the "Contracts on the Use of the Environmental Label". It also monitors correct use of the ecolabel.

Please use the following format when adding citations:

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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: umweltzeichen@ral.de

www.blauer-engel.de

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Changes compared to the previous versions can be found in Appendix A.

Table of contents

1	Introduction.....	4
1.1	Preface	4
1.2	Background	4
1.3	Objective of the environmental label.....	4
1.4	Compliance with legal requirements.....	4
1.5	Glossary.....	5
2	Scope	5
3	Requirements	5
3.1	Time and minimum temperature specification	5
3.2	Requirements on security of use.....	5
3.3	Preliminary examination of premises and materials.....	6
3.3.1	Preliminary examination and written information on heat sensitivity of materials.....	6
3.3.2	Use of chemical pesticides	6
3.4	Information sheet 1-1-08/D.....	6
3.5	Further regulations to comply	6
3.6	Securing species protection	6
3.7	Use of oil burners	6
3.8	Requirements for non-fitted timber.....	7
3.9	Other provisions.....	7
4	Applicants and Parties Involved	7
5	Use of the Environmental Label	7
	Appendix A	9

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

Ligniperdous insects can be killed by exposure to heat. Thermal processes are thus an effective alternative to chemical pest control processes and contribute to a reduction in exposure to insecticides for people and the environment.

1.3 Objective of the environmental label

The "Blue Angel for Thermal Processes to Control Ligniperdous Insects" should inform those affected that processes issued with this label - in contrast to other processes - provide greater preventative protection for the environment and human health.

Therefore, the environmental label provides pest controllers with a decision-making aid for the control of ligniperdous insects if they want to pay particular attention to environmental and health aspects when controlling the ligniperdous insects and also make this clear to those affected by them.

It is a voluntary label that is designed to motivate pest controllers to select control methods that pay particular attention to environmental and health aspects. Pest controllers dealing with ligniperdous insects can thus utilise the environmental label to convey this aspect of the process in a simple manner.

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



1.4 Compliance with legal requirements

Compliance with applicable laws and ordinances for the heating devices used for the thermal disinfestation, with which the thermal processes labelled with the environmental label are carried out, is expected as a matter of course.

1.5 Glossary

- [1] **Biocide:** Biocidal products are substances and preparations that serve to deter, make harmless or destroy harmful organisms (pests such as moths, woodworms, mice, etc.) in the non-agricultural sector by chemical or biological means.
- [2] **Wood preservative:** Wood preservatives are preparations containing biocidal substances that protect against wood destroying fungi and insects, as well as against wood staining organisms (blue stain fungi).

2 Scope

These Basic Criteria shall apply to hot-air techniques as specified in DIN (German Industrial Standard) 68800, Part 4, as amended, to control insect infestation of fitted timber in buildings, e.g. in attics.

Also included is the treatment of non-fitted timber (e.g. furniture) in rooms or facilities suited for this purpose.

Other thermal processes such as warm air processes, infrared processes and microwaves and high frequency processes can also be used. The information sheet 1-10-15/D (2015-9) "Special processes for Wood Protection" from the Wood/Wood Protection Department of the WTA (Wissenschaftlich-Technischen Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege e. V. - Scientific-Technical Working Group for Building Conservation and the Preservation of Monuments) is available on this subject.

3 Requirements

The above-shown Environmental Label may be used for the marking of the technique mentioned in paragraph 2 provided that it complies with the following requirements:

3.1 Time and minimum temperature specification

All parts of the timber to be treated must be exposed to a temperature of 55° C over a period of at least 60 minutes.

Continuous measurements of the temperature shall be taken at the cross-sectional center of the least accessible parts at least at two points. The measuring points shall be lastingly marked. The readings shall be recorded and kept for at least five years.

3.2 Requirements on security of use

For fire-protection reasons the hot-air temperature at the outlet of the feeding pipe shall not exceed 120° C. The outlet shall be kept at a distance of at least 1 m from easily inflammable material (Design category B 3 according to DIN 4102, Part 1) e.g. paper, paperboard and the like.

3.3 Preliminary examination of premises and materials

3.3.1 Preliminary examination and written information on heat sensitivity of materials

It must be checked beforehand whether or not heat-sensitive material might be impaired by being exposed to hot air. The customer shall be notified in writing of the results of such checks.

3.3.2 Use of chemical pesticides

For a successful control of ligniperdous insects in fitted timber chemical pesticides will have to be used on those parts of the timberwork which cannot be reached by hot-air treatment and which require on-the-spot treatment which cannot be achieved by other measures (e.g. exchange of the infested timber).

This process – preferably the shot-hole impregnation process – should exclusively use wood preservatives that are approved for controlling ligniperdous insects in accordance with the Biocide Regulation (EU No. 528/2012) or hold a Building Inspectorate Suitability Certificate from the DIBt (Deutsches Institut für Bautechnik - German Institute for Structural Engineering). It must be correspondingly labelled in accordance with DIN 68800 Part 4, Point 12.2 1.

Furthermore, the requirements for non-chemical processes according to DIN 68800 must be observed.

3.4 Information sheet 1-1-08/D

Further details on carrying out hot-air process are contained in the information sheet 1-1-08/D "Hot-Air Processes for Controlling Animals that Cause Damage to Wood in Buildings" from the Wood/Wood Protection Department of the WTA (Wissenschaftlich-Technischen Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege e.V. - Scientific-Technical Working Group for Building Conservation and the Preservation of Monuments).

The requirements in this information sheet must be observed.

3.5 Further regulations to comply

Occupational safety and accident prevention regulations, as well as any technical safety, occupational medicine and occupational hygiene rules, must be observed.

3.6 Securing species protection

For reasons of species protection advance checks shall be made to verify whether there are animals to be protected, such as bats and kestrels, which might be endangered. Pest control measures shall only be taken during seasonal periods of non-occupation.

3.7 Use of oil burners

When using oil burners DIN EN 267 needs to be complied with.

3.8 Requirements for non-fitted timber

Given the special features of pest control for non-fitted timber (e.g. furniture) in rooms or facilities suited for the purpose, applicants shall only be liable to meet the requirements of paras. 3.1, 3.3.1, 3.5 and 3.9 for this field of application. In addition, they shall declare that they will do without chemical wood-preservation measures.

3.9 Other provisions

Unless otherwise specified below insect control by means of hot air shall be carried out in accordance with the provisions of DIN 68800, Part 4.

Compliance Verifications

Applicant shall declare compliance with the requirements pursuant to paragraph 3.

4 Applicants and Parties Involved

Suppliers 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, 2027. They shall be extended by periods of one year each, unless terminated in writing by March 31, 2027 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)
- Brand/trade name, product description
- Distributor (label user), i.e. the above-mentioned marketing organisations.

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Appendix A Version history

The following changes were made to ecolabel DE-UZ 57a "Thermal Processes to Control Ligniperidous Insects, Edition January 2017, Version 1" and required the issuing of an updated version in each case. The version at the time of application is valid. If the changes were required for the implementation of new legal regulations, they apply to all certified products.

Version 2 (03/2018): Editorial changes

Version 3 (01/2021): Prolongation with modified test method for 4 years until 31.12.2025

Version 4 (01/2025): Prolongation without change, Expiry date: December 31, 2027