

Good Environmental Choice Australia Ltd
Managers of the Australian Ecolabel Program

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The Australian Ecolabel Program

Australian Voluntary Environmental Labelling Standard

Floor Coverings



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Use Of This Standard

This voluntary environmental labelling standard may be used by competent environmental assessors to establish product compliance to the Australian Ecolabel Program. Products that are certified with the mark of conformity, the “Environmental Choice Label” have been independently tested and demonstrate compliance to the environmental and social performance criteria detailed in this standard. The overall goal of environmental labels and declarations is, through communication of verifiable and accurate information, that is not misleading, on environmental aspects of products and services, to encourage the demand for and supply of those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement.

This standard identifies environmental, quality, regulatory and social performance criteria that products sold on the Australian market can meet in order to be considered as best “environment practice”. Products that have been certified as complying to this standard may gain greater market recognition and a marketing advantage in government and business procurement programs and broad consumer environmental preference.

This standard can be used by Australian producers to guide their design for environment programs by using the environmental criteria as key performance benchmarks that reduce the environmental loads of their product. The standard is necessarily restricted in its identification of environmental loads from the product life cycle. Producers should consider other environmental improvement along the product cycle not included in this standard for their design for environment programs and aim for even higher levels of environmental performance where technically possible.

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Voluntary Environmental Labelling Standard

Floor Coverings

Abstract

This Standard specifies environmental performance requirements of floor coverings for the Australian Ecolabel Program. The program generally complies to ISO 14024: "Environmental labels and declarations - Guiding principles" which requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable.

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Definitions:

“ISO” means International Organisation for Standardisation.

“Label” means the Australian Good Environmental Choice Label.

“Recycled Wood” includes:

“**Post-Consumer**”: Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of a product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

“**Pre-Consumer**”: Material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

1.0 Introduction To Floor Coverings

Environmental loads associated with the production and consumption of products and services results in the degradation of our natural environment. The purpose of this standard is to define the environmental load reduction requirements for floor coverings on the Australian market and to define the benchmark for use of the label.

The impact on the environment of floor covering products primarily comes from the different types of raw materials used, products for surface treatment and glue, and from the energy used during manufacturing. In addition, environmental impacts can occur during use and maintenance and when the floor covering reaches the end of its useful life and becomes waste to be recycled/reused/reprocessed or disposed of.

This draft standard identifies the key environmental loads of floor coverings. The specific requirements of the standard include product performance, material content, adhesives, emissions during production and post-installation, and energy use and waste.

2.0 Product Category Scope

This category includes floor coverings (such as parquet, wooden planks, laminate and linoleum) and carpet underlays that:

- Are fixed to the floor and laid on top of a foundation of concrete or wood/beams; and
- Have no structural purpose;

This standard does not include floor coverings that are applied in a liquid state, or carpet products.

3.0 Environmental Performance Criteria

3.1 Fitness for Purpose

Certified products should be good performers in their intended application. It is implied that certain standards of product performance are implicit in the label. Certified product must ensure that:

- 3.1.1 The product meets the performance requirements of the relevant Australian Standard for its intended application; or
- 3.1.2 The product meets any other internationally accepted standard if it is to be exported; or
- 3.1.3 Where appropriate the product meets industry codes of product performance and market expectations.

3.2 Requirements for Wood and Other Natural Products

The requirements in this Section apply only to floor coverings that contain more than 10% by weight of wood.

3.2.1 Controversial Sources

Wood and other natural materials from sources that are not certified under a recognised certification scheme (e.g. FSC or AFS) as being sustainably managed shall not originate from:

Illegal harvesting

Illegally harvested wood and natural materials are those that are harvested traded or transported in a way that is in breach with applicable national regulations (such regulations can for example address CITES species, money laundering, corruption and bribery, and other relevant national regulations).

Genetically modified organisms

Wood and natural materials from genetically modified organisms are those which have been induced by various means to consist of genetic structural changes (for a definition of genetically modified, please refer to Directive 2001/18/EC on the deliberate release of genetically modified organisms in the environment). Please note that this does not exclude traditional breeding programs, since these are not considered to be part of the techniques of genetic modification.

Uncertified high conservation value communities

High Conservation Value communities are those that possess one or more of the following attributes:

- a) Communities containing globally, regionally or nationally significant concentrations of biodiversity

values (e.g. endemism, endangered species, refugia); and/or large landscape level communities, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;

- b) Communities that are in[constitute] or contain rare, threatened or endangered ecosystems;
- c) Communities fundamental to meeting basic needs of locally indigenous human populations (e.g. subsistence, health) and/or critical to these people's traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

For materials sourced from within Australia, please refer to the EPBC Act List of Threatened Fauna at <http://www.deh.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna> and the EPBC Act List of Threatened Flora at <http://www.deh.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora> for listings of threatened species, the EPBC Act List of Threatened Ecological Communities at <http://www.deh.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl> for listings of threatened communities and the Australian Heritage Data Base at <http://www.deh.gov.au/cgi-bin/ahdb/search.pl> for listings of areas of cultural significance. For materials sourced from outside Australia, please refer to credible lists detailing threatened species, threatened communities and areas of cultural significance in the respective countries.

3.2.2 Treatment

Wood and natural materials used in floor covering products may not be treated with fungicides and insecticides that are classified due to their hazardous nature by the IARC as Type 1a and Type 1b as hazardous for storage and/or transportation.

Refer: <http://www.who.int/whopes/recommendations/en/>

3.3 Hazardous Substances

The product must meet the following requirements

3.3.1 The floor covering must not contain more than 0.1% by weight (in total) of substances that are classified under the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) as:

- 6.1 acutely toxic
- 6.6 known or suspected human mutagens
- 6.7 known or suspected human carcinogens
- 6.8 known or suspected human reproductive or developmental toxicants

3.3.2 The floor covering must not contain more than 1% by weight (in total) of substances in the surface treatment of the flooring product or in materials that have direct exposure to users of the product, that are classified under the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) as:

- 6.3 skin irritants
- 6.5 respiratory and contact sensitizers

3.3.3 The following substances must not be actively added to the floor covering during manufacturing:

- Short-chained chlorinated paraffins of carbon chain length 10- 13 atoms
- Brominated paraffin flame retardants
- Organic tin compounds and antimony oxides

- The Phthalates DEHP, DBP, BBP or DAP.
- Halogenated aromatic flame retardants (e.g., Polybrominated diphenyl ethers).

3.3.4 Products that contain the following substances must not actively be added to the floor covering during manufacturing:

- Cadmium (Cd)
- Chromium (Cr)
- Lead (Pb)
- Arsenic (As)
- Mercury (Hg).

Exempt from this requirement are contaminants in products in concentrations up to 1 mg/kg floor covering in the case of Hg, As, Cr and Cd and 10 mg/kg floor covering in the case of Pb.

3.3.5 Azo-based dyes that shed carcinogenic aryl amines (listed below) must not be used.

	CAS no.
4-Aminobiphenyl	92-67-1
Benzidine	92-87-5
4-Chloro-o-toluidine	95-69-2
2-Naphthylamine	91-59-8
o-Aminoazotoluene	97-56-3
5-Nitro-o-toluidine	99-55-8
p-Chloroaniline	106-47-8
4-Methoxy-m-phenylenediamine	615-05-4
4,4.-Methylenedianiline	101-77-9
3,3.-Dichlorobenzidine	91-94-1
3,3.-Dimethoxybenzidine	119-90-4
3,3.-Dimethylbenzidine	119-93-7
4,4.-Methylenedi-o-toluidine	838-88-0
6-Methoxy-m-toluidine	120-71-8
4,4.-Methylenebis(2-chloroaniline)	101-14-4
4,4.-Oxydianiline	101-80-4
4,4.-Thiodianiline	139-65-1
o-Toluidine	95-53-4
4-Methyl-m-phenylenediamine	95-80-7
2,4,5-Trimethylaniline	137-17-7
O-anisidine	90-04-0

3.3.6 CFCs, HCFCs, HFCs, methylene chloride or other halogenated organic solvents shall not be used in the production of floor coverings at any stage during the manufacturing process, including as cleaning agents for production equipment.

3.3.7 Organic Tin Catalysts must not be used. Flexible polyurethane may be exempt from this requirement if the manufacturer has in place a contract with a licensed or registered hazardous waste disposal company who is responsible for the correct disposal of the hazardous waste.

3.4 Formaldehyde content and formaldehyde emitting additives

The formaldehyde emission criterion outlined below only applies to the indoor application of flooring products. Products which are destined for an outdoor use for the duration of the product life are exempt from this criterion.

Floors containing additives with formaldehyde content or formaldehyde-emitting substances must fulfill one of the following requirements (either a, or b):

- a) Control of formaldehyde from the finished floor.

Formaldehyde emissions from the finished product (i.e. the floor covering) must be less than 0.13 mg/m³ in air, from a new product.

- b) Control of formaldehyde during the production of flooring.

The following may be chosen for products (i.e. flooring) where boards of chippings or wood fibre (e.g. MDF) contain and/or emit formaldehyde.

The content of free formaldehyde must not exceed the following threshold values:

Individual values (*):	≤ 8 mg formaldehyde/100 g solids.
Six month average:	≤ 6.5 mg formaldehyde/100 g solids.

(*) The requirement must be fulfilled by 95% of all measured values.

As a suitable chamber method for wooden boards, the draft European Standard: Draft prENV 717-1 is recommended. Supplemented by the applicable EN standard for reference determination of emission values. The method used must be reported.

For determining compliance with the thresholds in (b) the value is determined from the version of EN-120 in force from time to time, "The perforator method": The requirement in (b) applies to boards of wood products with a moisture content of H = 6.5%. If the boards have different moisture content within the range 3 to 10%, the analyzed perforator value must be multiplied by a factor F, calculated using the following formula:

For chipboards:	$F = 0.122H + 1.86;$
For MDF:	$F = 0.121H + 1.78$

3.5 Waste Minimisation and Management

- a) The manufacturing process must include processes to minimise waste through recovery and reuse or reprocessing and/or use of waste for energy.
- b) The product must be designed in such a way that it can be safely processed after use by means of normal methods available in the market in which it will be used and disposed (e.g. re-use, recycling/reprocessing and/or safe disposal).

3.6 Product Information

The floor covering product must be accompanied by the following information for product suppliers, installers and consumers:

- For upper layers, the recommended base or underlay for the floor covering. For bases or underlays, the recommended upper floor covering.

- The recommended upper limit on the relative moisture in the underlying material and the recommended laying temperature.
- The recommended adhesive to glue flooring parts together and to glue the floor to the underlying surface.
- If floor parts need to be connected by means of welding, the recommended method must be specified.
- The recommended cleaning and maintenance agents/methods.
- In the case of oiled and untreated wooden flooring, a description of the treatment required (type/quality oil or varnish) to achieve the intended abrasion resistance.
- The appropriate type of area to use the product (specified in accordance with the classes outlined in Section 6 of EN 685).
- How the duration of the floor can be prolonged by renovation e.g. by means of sanding and surface treatment.

4 Compliance to Environmental Regulations

The applicant is required to comply with relevant environmental legislation and government orders at the Local, State and Commonwealth level, if these have been issued. An applicants compliance with this criteria may be established by undertaking a series of random checks and gathering samples of applicant operational procedures and documents by approved assessors as evidence to support compliance during the verification and /or a statement of self declaration by an executive officer of the applicant organisation. Where an applicant is from an overseas jurisdiction, that jurisdictions environmental regulations apply.

5 Compliance to Labour, Anti-Discrimination and Safety Regulations

An applicant shall demonstrate that all employees are covered by a Federal or State award or a certified industrial agreement or a registered workplace agreement as determined by the Industrial Relations Commission, the Employment Advocate or a State or Territory Workplace Relations Agency.

An applicant shall demonstrate general compliance to the terms of State or Territory Legislation concerning Occupational, Health and Safety and/or the *Commonwealth Safety, Rehabilitation and Compensation Act 1988* where applicable. Where the applicant is subject to a breach order by a government agency or a guilty verdict by an Australian Court within the last 24 months on the basis of a breach of State, Territory or Commonwealth Occupational, Health and Safety Legislation there must be evidence of corrective action.

The applicant shall demonstrate general compliance to the requirements of the *Racial Discrimination Act 1975*, *Sex Discrimination Act 1984*, *Disability Discrimination Act 1992*, *Equal Opportunity for Women in the Workplace Act 1999* and complementary State Legislation. Applicants cannot be in the list of 'named' or non-compliant employers under the *Equal Opportunity for Women in the Workplace Act 1999*. Where the applicant is subject to a breach order by a government agency or a guilty verdict by an Australian Court in the last 24 months on the basis of a breach of these Acts there must be evidence of corrective action.

Where an applicant is from an overseas jurisdiction, the applicant shall demonstrate general compliance to that jurisdictions anti-discrimination, occupational health and safety and workers compensations regulations. Where the applicant is subject to a breach order by a government agency or a guilty verdict by a legal court in their respective country within the last 24 months on the basis of a the breach of anti-discrimination, occupational health and safety and workers compensations regulations there must be evidence of corrective action.

An applicant's compliance with these criteria may be established by undertaking a series of random checks and gathering samples of applicant operational procedures and documents by approved assessors as evidence to support compliance during the verification and /or a statement of self declaration by an executive officer of the applicant organization.

6.0 Compliance Testing

Conformance with this standard shall be demonstrated by undertaking an assessment to the above criteria by an approved assessor following the certification and verification procedures detailed in Good Environmental Choice Australia Ltd Documented Quality Management System which generally follows the environmental auditing requirements of ISO 14 010 and 14 011.

The Australian Ecolabel Program classifies approved assessors as:

1. Assessors registered by Good Environmental Choice Australia Ltd as environmental professionals that hold expertise relevant for an assessment and which have undertaken training in the procedures of the Australian Ecolabel Program, or
2. Environmental auditors accredited with the Quality Society of Australasia following the principles of ISO 14 0012; or
3. Assessors registered with the Environmental Choice New Zealand Trust.

New testing shall be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA) or similar overseas accreditation to carry out the relevant tests and/or documentation detailing environmental performance against the key indicators for this standard. The tests results should be presented on NATA endorsed reports or from a laboratory acceptable to Good Environmental Choice Australia Ltd.

Audit evidence should be of such a quality and quantity that competent environmental auditors working independently of each other will reach similar audit findings from evaluation of the same audit evidence against the same audit criteria.

Suitable sources of information to establish compliance may be but are not limited to:

- 1) Technical specification of the product.
- 2) Obvious characteristics of the product from examination.
- 3) Scientific and test results and reports.
- 4) Environmental management system and audit reports and results.
- 5) Life cycle assessment of each stage of the product life cycle via a physical audit and examination.
- 6) Life cycle assessment via scientific testing.
- 7) A statement of confirmation by an executive officer.
- 8) An assessment of company or government records.
- 9) Other material that can be considered objective evidence.

If testing results or environmental auditing results are not available, and/or there is not sufficient data to establish full compliance to the criteria required by this standard then certification cannot be awarded.