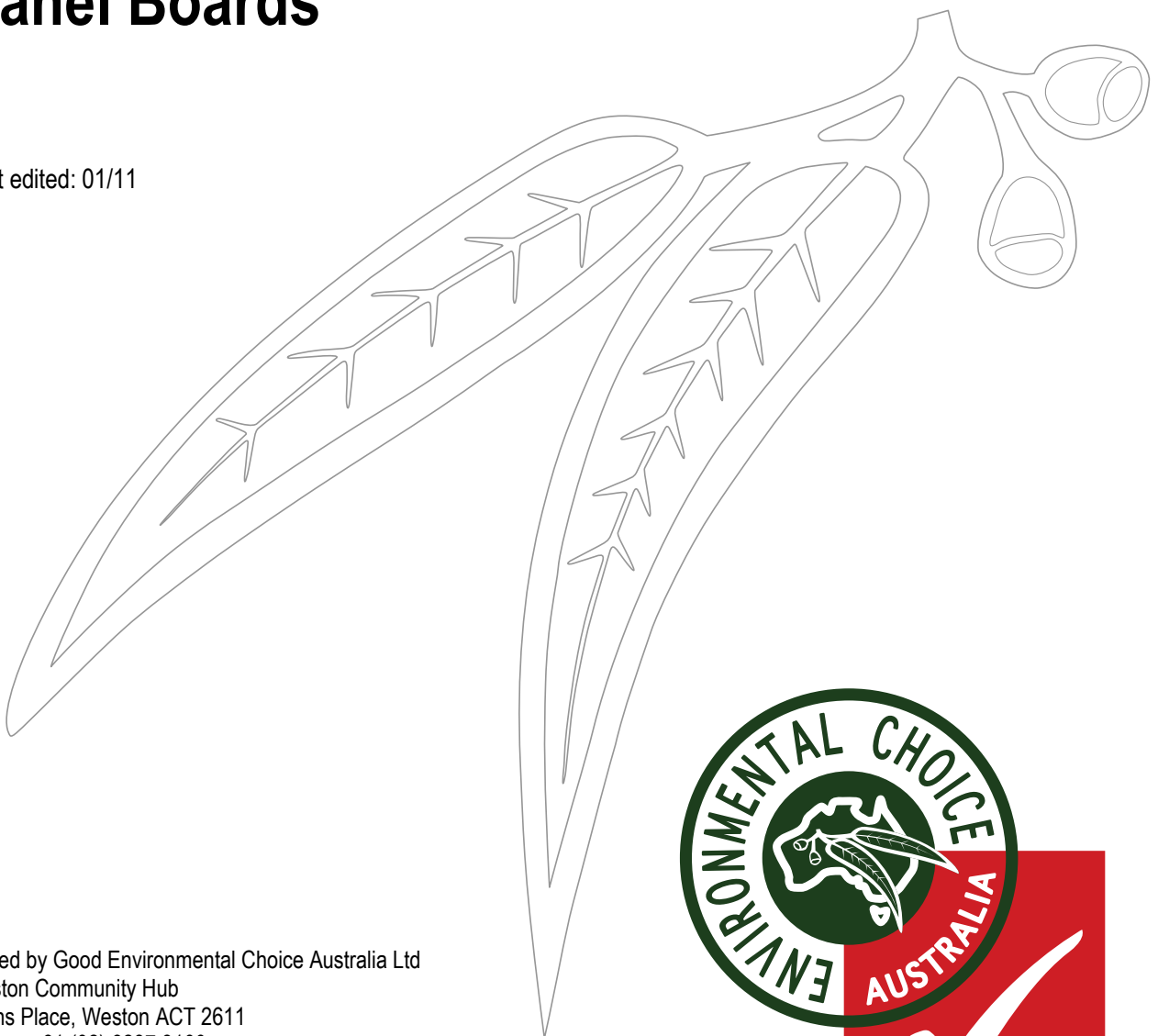


# Good Environmental Choice Australia

## Environmental Performance Standard

### Panel Boards

Last edited: 01/11



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## USE OF GECA STANDARDS

This standard identifies environmental, quality, regulatory and social criteria that the top products sold in the Australian marketplace can meet in order to be recognised by GECA as “environmentally preferable”.

This standard seeks to set the benchmark for environmentally preferable products. The Australian Ecolabel Program is based on the international standard ISO 14024: "Environmental Labels and Declarations - Guiding Principles" which requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable.

This standard may be used by GECA-approved environmental auditors to verify whether a product fully conforms to the criteria set by this standard. Where a product is certified for the Australian Ecolabel Program, it may display the GECA Ecolabel (the “Environmental Choice Australia Mark”) to show that the product has been independently audited and demonstrates conformance with the environmental and social criteria detailed in this standard.

The purpose of voluntary environmental labels and declarations is the communication of verifiable and accurate information for the numerous environmental aspects of goods and services. As required by the Trade Practices Act the information cannot be misleading. Such information encourages the demand for, and supply of, those products that cause less harm to the environment, thereby stimulating the potential for market-driven continuous environmental improvement. Where a company has a product certified as conforming to this standard, it may gain a marketing advantage in government and business procurement programs, as well as greater market recognition in general because of its independently verified environmental attributes.

These criteria have been set to address relevant environmental loads typical in a product category with respect to the entire product life cycle. As such, this standard may also offer guidance for Australian producers to reduce the environmentally harmful impacts of their product(s). Producers may use the environmental criteria in this standard to design and refine the processing, manufacturing and delivery of their product(s). In addition producers may find other environmental issues and more measures along the product's life cycle, which are beyond the content of this standard. Producers are encouraged to include and adapt improvements in their environment programs and designs to aim for even better environmental results where technically possible. GECA welcomes feedback where this has been achieved.

While all GECA ecolabelling standards are voluntary, nevertheless they contain criteria that address compliance with specific laws. In addition, a GECA standard may recognise specific Australian Standards. A prerequisite for certification under the GECA Ecolabel is to satisfy the relevant Australian or International Standard, where it is required by law. However Australian Standards typically define “fit-for-purpose” criteria and usually do not provide assurance of environmental performance. GECA ecolabelling standards go beyond Australian Standards and define an environmental benchmark for the product category.

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# Panel Boards

## Document History

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Previous Versions	Date Completed	Summary of Changes	GECA REF
Version 1.0	26 October 2007	N/A	N/A
Version 1.1	01 August 2008	Clarified prohibited substance list	SP
Version 1.2	15 September 2008	Introduced verification requirements Revised radioactivity requirement Removed redundant free formaldehyde requirement	SP
Version 1.9	23 June 2009	Update to New GECA template and incorporation of new criteria Amendments in line with International Standards Clarification and addition of documentation requirements for Demonstration of Conformance items Background section revised	SK
Version 2.0	April 2010 June 2010	Incorporation of new criteria relating to Hazardous Materials, Prohibited substances, Product stewardship New Formaldehyde requirements	SK

## How to Apply for GECA Certification

Manufacturers or service suppliers interested in GECA certification using the Environmental Choice Australia Ecolabel are encouraged to read carefully through the entire standard and to evaluate whether their products are likely to conform to the standard and to pass the assessment process.

To launch an application, please download and complete the application form from the GECA website:

<http://www.geca.org.au/contact/>.

The completed application form can be sent to GECA either by mail or by fax.

After receiving the completed application form and the application fee, GECA hands the verification process over to an appointed auditing body. The auditing body contacts the applicant and gives a clear overview of the steps needed to achieve certification for their particular product type.

## Structure of the standard

Each section within this standard contains criteria and demonstration of conformance (DoC). The criteria state the requirements for the product and applicant company with respect to its environmental performance. The DoCs list the information required to verify compliance to the criteria. Selected sections also contain introductory text which outlines the purpose behind the criteria.

## Requesting Additional Evidence

Demonstration of Conformance items are listed for each criterion. The GECA approved auditor/s will request additional information to ensure conformance on a case by case basis. Hence, the conformance items listed below are considered a guide to the minimum Demonstration of Conformance items that will be required from the applicant company.

## Definitions & Acronyms

**Alloy:** A combination of two or more elements, one of which is a metal. This includes binary, tertiary and quaternary alloys (two, three and four elements, respectively). The result is a metallic substance with properties different from those of its components.

**Auditor:** An auditor is responsible for determining conformance or alternatively, non-conformance of a product to each criterion within a GECA standard. An auditor is a qualified, independent professional who is authorised by GECA and an applicant to the Environmental Choice Australia Certification to conduct an examination of the records and the operations of the applicant with a view to verify the authenticity and correctness of records and operations used to support a claim conformance against a GECA standard. **In 2011 GECA will use only 'GECA Designated Auditors' (refer to definition below).**

**CAS:** Chemical Abstract Service. CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. They are also referred to as CAS numbers or CAS RNs.

**COD:** Chemical oxidation demand, the equivalent mass of oxygen required to oxidise dissolved and suspended organic matter under defined conditions, typically using dichromate or permanganate as the oxidising agent.

**Edge Glued Panels:** Glued processed timbers, such as small lumbered wood or wood layers, that are formed and pressed into sheets in the direction of fibre, parallel to each other and bonded with resin. These panels are often known as veneer panels.

**EPBC:** Environment Protection and Biodiversity Conservation Act 1999.

**Fibre Boards:** Sheet material made from lignocellulosic fibres with the primary bond derived from the felting of the fibres and their inherent adhesive properties. Bonding or impregnating agents may be added during manufacture. When heat and pressure are used to cure the adhesive, fibre board of increased density is produced. According to the density, they are categorised into 'insulation boards' (IB), 'medium density fibre' boards (MDF) and 'hard boards' (HB).

**GECA Designated Auditor/s:** An auditor that has been accredited to assess against GECA's Scheme Rules. For the most recent listing of GECA Designated Auditor/s see [www.geca.org.au](http://www.geca.org.au)

**Gypsum board:** see Plasterboard.

**Halogens:** Chlorine (Cl), fluorine (F), bromine (Br), iodine (I) and astatine (At).

**IARC:** International Agency for Research on Cancer

**Label:** means the Environmental Choice Australia Ecolabel.

**MSDS:** Material Safety Data Sheet

**NOHSC:** National Occupational Health and Safety Commission

**Particle Boards:** Boards made from wood fragments (chips or shavings) which are formed and pressed into sheet form and bonded together with resin.

**Plasterboard:** a rigid board with a gypsum plaster core bonded to layers of paper or fibre board



**Plywood:** An assembled product made of two or more plies bonded together with the direction of grain in alternate plies usually at right angles.

**Rapidly renewable:** materials for which 'mature' harvest can occur on a ten year cycle or less.

**Recycled Content includes:**

**Post-Consumer:** Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the 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, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.

**STEL (Exposure Standard - Short Term Exposure Limit):** A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL **(NOHSC)**.

**Timber / Wood:** Includes wood sourced from raw (virgin) forest timbers, timbers sourced from sustainable forestry, or waste wood materials including particle boards, fibre boards and edge-glued panels. Also includes used timber/wood.

**TOC:** Total Organic Content, defined as the total amount of organic substances dissolved in a water sample.

**TWA (Exposure Standard - Time-Weighted Average):** The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

**UNSCEAR:** United Nations Scientific Committee on the Effects of Atomic Radiation. The global median emission from soils may be found in the UNSCEAR 2000 Report to the General Assembly, Volume 1.

**Used Timber / Wood:** Also known as salvaged or reclaimed timber/wood. Includes materials sourced from old (pre-loved) furniture, demolitions, and other relevant sources.

**Veneer Panels:** See Edge-Glued Panels.

**VOC:** Any organic compound having a vapour pressure of 0.01 kPa or more, at 20°C, or having a corresponding volatility under the particular conditions of use.

**Waste Wood:** Residual products generated by thinning out timbers, cutting out branches and processing timber and to withdrawn timbers after use, excluding withered or dead trees.



## BACKGROUND

The GECA 04 – Panel Boards standard seeks to define good environmental performance benchmarks for panel boards throughout their entire life cycle.

GECA standards aim to encourage and recognise environmental benefits in avoiding hazardous chemicals, conserving resources, minimising waste for landfill, and encouraging the use of environmentally preferable materials. Where possible, data from life cycle assessments are used to inform standard criteria. Life cycle assessment is an evolving science and as information becomes available and technologies change, product category requirements will be reviewed and updated.

The benchmarks in this standard represent 'current industry best practise' as defined by consensus between GECA technical working groups, international and national standards and through public feedback. GECA Technical working groups are comprised of a diverse group of people including experts in the relevant industry, representatives of green groups, scientists, public servants in policy development and others.

Panel boards are used largely as a means of lining in construction. Panel boards are also used in a number of other applications such as interior screens and parts of furniture. Hence a variety of materials are used in the production of panel boards, such as timber, gypsum, plastics, aluminium, steel, fibre cement and engineered wood products. The Panel Board types considered in this standard are described in the Scope Schedule section of this standard.

In Australia approximately 30% by weight of resources disposed of in landfills is construction and demolition waste. A significant proportion of this waste is comprised of panel boards. Hence this standard seeks to minimise the impact of the end use phase through rewarding products that use less material, maximise recyclability, minimise hazardous ingredients/contaminants, and use environmentally preferable materials sourcing. Environmental improvements to post use phases facilitate the conservation of resources and reduce demand for virgin resources. This in turn reduces impacts of items for use within residential, commercial and government environments and form a major manufacturing sector in Australia.

The primary purpose of this standard is to define environmental product criteria for the most harmful environmental and human hazards of panel boards and to use these criteria as indicators of general environmental performance of the product.





## 1. STANDARD CATEGORY SCOPE

### 1.1. Scope schedule

This standard is applicable to a range of panel board products used for interior fit-out applications such as interior panelling and as a component of furniture. This includes:

- Particle Boards;
- Edge Glued Panels;
- Fibre Boards;
- Plasterboard or gypsum board;
- Ceiling tiles; and
- Boards made from plastics and other polymers, textile fibres, metals, glass, mineral fibre, fibreglass, engineered timber and natural fibre products.

### Exclusions and Notes

This standard excludes exterior siding or cladding, or materials with a structural function in buildings. Structural Insulated Panels (SIPs) are not included in the scope of this standard; refer to GECA 33 - Thermal Insulation Standard.

Other environmentally innovative panel board products that do not fit the above categories may be considered for certification provided the product fulfils the requirements of any relevant sections of this Standard. Other categories may be added at a later date.

### Demonstration of Conformance

**DoC 1.1:** Detailed description of the product(s) or product range; and explanation of applicability of the product(s) to the scope of this standard.



## 2. FITNESS FOR PURPOSE

*To be certified, the product(s) must be fit to perform its intended purpose or application. A minimum level of quality and durability is implicit before the GECA Ecolabel can be displayed on the product. The producer/manufacturer must ensure that the product is fit for its intended purpose.*

### 2.1. Applicable Standards and Demonstrated Fitness

**Criterion 2:** The product meets or exceeds the requirements of the relevant Australian Standard, or the product meets the applicable and accepted standard in its target market if it is to be exported;

or,

The product must demonstrate fitness for purpose or market acceptance or quality.

#### Demonstration of Conformance

**DoC 2.1:** A description of the product as it relates to relevant Australian (or other) Standards. If there is no applicable Australian Standard (or international equivalent), or if it is not legally required, this should be clearly stated; and

*(One of the following DoCs is required as a minimum)*

**DoC 2.2:** Independent audit or test reports confirming conformance with the relevant Australian or international safety and/or quality standard, if applicable, or

**DoC 2.3:** Report from an independent organisation (or independent engineer's report) or case studies from existing installations that demonstrate fitness for purpose, market acceptance, suitability or quality.

### 2.2. Warranty

**Criterion 3:** The manufacturer/applicant must offer a commercial guarantee of a minimum of eight years on the quality of the product, provided the product is used for its intended purpose. The guarantee must be valid from the date of delivery to the customer.

#### Demonstration of Conformance

**DoC 3.1:** Evidence of the warranty offer provided to customers. This can be a guarantee certificate or authorised statement on the company website.

### 3. DESIGN FOR ENVIRONMENTAL PERFORMANCE

*The criteria in this section are intended to address some of the major life-cycle factors of a product that can be anticipated in sustainable design and are more easily incorporated during the design phase of product development.*

*Unless otherwise stated, the requirements in this section apply to each type of material contained in the finished product regardless of weight.*

#### MATERIAL REQUIREMENTS

##### 3.1. Timber and Other Natural Materials

**Criterion 4:** Fibre may be sourced from any combination of FSC or AFS certified fibre, or any of the following non-certified sources: plantation wood fibre, cellulose fibre, return fibre (i.e. postconsumer and preconsumer fibre), cotton fibre, crop residue or other waste fibre. Fibre sources that are not certified under a recognised certification scheme (e.g. FSC) as being sustainably managed shall not originate from the following controversial sources:

#### CONTROVERSIAL SOURCES

##### a. 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).

##### b. Genetically modified organisms

Wood and natural materials from genetically modified organisms are those which have been induced by various means to include genetic structural changes (for a definition of genetically modified, please refer to the European Union Directive 2001/18/EC on the deliberate release of genetically modified organisms in the environment). Traditional breeding programs do not constitute genetic modification.

##### c. Recently established plantations impacting primary ecosystems

The plantation or agricultural land use must have been established prior to 2000 and not have impacted primary ecosystems at the time of establishment. Establishment includes the logging or destruction of primary forest followed by the establishment of the plantation.

##### d. Uncertified high conservation value communities

High conservation value communities are those that possess one or more of the following attributes:

- 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.
- Communities that are in [constitute] or contain rare, threatened or endangered ecosystems.
- 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 following:

The EPBC Act List of Threatened Fauna at

<http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna>

The EPBC Act List of Threatened Flora at

<http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora>

The EPBC Act List of Threatened Ecological Communities

<http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl>

The Australian Heritage Database (for listings of areas of cultural significance) at

<http://www.environment.gov.au/cgi-bin/ahdb/search.pl>

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.

### Demonstration of Conformance

**DoC 4.1:** Design specification or schedule for materials and components used to make the product; and

**DoC 4.2:** Chain of Custody evidence for timber and natural materials including receipts showing origin of materials. Evidence must include latin names and english common names, geographic origin and the supplier. GECA or its designated auditor/s may demand further documentation if deemed necessary; and

**DoC 4.3:** Total amount of certified wood and/or certified wood fibre used in the products annually; and

**DoC 4.4:** Copy of certificate(s) signed by the certification authority; and

**DoC 4.5:** Signed declaration and short description of the system used to ensure the wood or natural fibre is sourced from traceable sources on an ongoing basis.

### 3.2. Treatments

**Criterion 5:** Wood, including engineered wood products and natural materials used in panel boards must not be treated or impregnated with fungicides and insecticides that are listed as IARC 2B.

Refer to: <http://monographs.iarc.fr/ENG/Classification/index.php>.

**Note: IARC 1 and IARC 2A substances are addressed under the Hazardous Materials section of this standard.**

### Demonstration of Conformance

**DoC 5.1:** Signed documentation from the applicant stating that any pesticides used are not classified by the IARC as Group 1, 2A, or 2B. The documentation must show the type of wood, origin, certification if applicable and supplier, and include a schedule of all agents used (including CAS numbers and common names) to treat wood and other natural materials. If the applicant does not perform the treatment as part of the manufacturing process, this statement should come from the supplier of the pre-treated timber.

### 3.3. Polyurethane and Padding Requirements

**Criterion 6:** Latex or foam must not contain concentrations of 1, 3 butadiene greater than 1 ppm (1 mg/kg).

### Demonstration of Conformance

*(Only one of the following DoC is required)*

**DoC 6.1:** Signed declaration that no latex or foam is used in the product; or

**DoC 6.2:** Signed declaration of non use of 1, 3 butadiene from an Executive Officer of the company that produces the latex or foam; or



**DoC 6.3:** Report on a test carried out in accordance with the following procedure: A sample of the cured product must be ground and weighed before being analysed. Sampling by use of a headspace sampler. Analysis by means of gas chromatography, detection by use of a flame ionization detector; or

**DoC 6.4:** VOC test showing a specific line item for butadiene as zero, or a total "alkenes" line item as less than 0.05 mg/m<sup>2</sup>hr, or less than 0.05 mg/m<sup>3</sup> using any reputable standard VOC test method.

**Criterion 7:** CFC, HCFC, HFC or methylene chloride must not be used as blowing agents in polyurethane.

**Demonstration of Conformance**

**DoC 7.1:** Signed declaration describing the expansion process and whether CFC, HCFC, HFC or methylene chloride was used in the expansion process.

**Criterion 8:** Aniline based amines must not be added to the padding material.

**Demonstration of Conformance**

**DoC 8.1:** Signed declaration from supplier describing the manufacturing process and whether aniline based amines are used.

**Criterion 9:** Where organic tin catalysts are used in the production of polyurethane, the manufacturer must have in place a contract with a licensed or registered hazardous waste disposal company responsible for the correct disposal of the hazardous waste.

**Demonstration of Conformance**

**DoC 9.1:** Copy of the signed contract between the polyurethane manufacturer and the licensed or registered hazardous waste disposal company outlining the disposal methods of the hazardous waste.

### 3.4. Fabrics

*This requirement is included in order to recognise the environmental impacts involved in textile manufacture, and reward textile manufacturers that have already taken positive steps towards reducing their environmental loads.*

**Criterion 10:** Fabric must

- a) Be certified by the Environmental Choice Australia ecolabel, the Environmental Choice New Zealand ecolabel, EU Flower ecolabel or the Nordic Swan ecolabel; or
- b) Satisfy the requirements of GECA Standard 19: Textiles; or
- c) Satisfy the requirements of the Hazardous Materials section of this standard.

**Demonstration of Conformance**

*(Only one of the following DoCs is required)*

**DoC 10.1:** Signed declaration stating that no fabrics are used; or

**DoC 10.2:** Schedule of fabrics used and a copy of the Ecolabel licence from the supplier for each fabric product used (note: Where an 'alternative and equivalent' ecolabel is nominated, the licence will be accepted if deemed equivalent based on the criteria of the standard and the procedures of the standards setting body and at the auditor's discretion); or

**DoC 10.3:** Where fabrics are not certified by an ecolabel, the applicant can demonstrate that the fabric satisfies the requirements of the GECA-19 Textiles standard by providing a report completed by a GECA approved auditor that demonstrates conformance against the standard. Otherwise, fabrics may be assessed under the Hazardous Materials section of this standard if option c) is chosen.



### 3.5. Glass

**Criterion 11:** All glass must be recyclable in local council recycling systems or by a specialist recycling facility as nominated in the Product Stewardship criterion. If the glass cannot be recycled in local council recycling systems the applicant must include notification to this effect in the product information in order to avoid contamination or glass that is recyclable in these systems.

#### Demonstration of Conformance

**DoC 11.1:** If glass is used in the product, the applicant must provide a specification of the type of glass used and details of any tints, colourings or coatings; and

**DoC 11.2:** A copy of receipts or arrangements for the recycling of glass in either a local council facility or specialist facility; and

**DoC 11.3:** A copy of the information provided with the product.

### 3.6. Adhesives

*This section is intended for adhesives used in the manufacture and assembly of the product. Resins and binders used in the creation of engineered wood products are not addressed by this criterion.*

**Criterion 12:** Adhesives must be certified by the Environmental Choice Australia ecolabel, or Nordic Swan ecolabel; or an 'alternative and equivalent' label to these nominated labels; or satisfy the requirements of GECA-01 Adhesives.

Where an alternative and equivalent label is nominated the label will be accepted if deemed equivalent based on criteria of the standard, the procedures of the standard setting body, and the auditors discretion.

#### Demonstration of Conformance

*(Only two of the following DoCs is required)*

**DoC 12.1:** Signed declaration from an Executive Director of the applicant company stating that no adhesives are used; or Schedule of adhesives used; and one or more of the following as applicable:

**DoC 12.2:** A copy of the relevant Ecolabel certificate for each adhesive used; or

**DoC 12.3:** Where adhesives are not certified by an Ecolabel, the applicant can demonstrate that the adhesive satisfies the material requirements of the GECA-01 Adhesives standard by providing a report completed by a GECA appointed auditor which demonstrates conformance against the standard.

### 3.7. Paper processing

*This section refers to all paper materials used in panel boards including laminating paper.*

**Criterion 13:** Paper must not be bleached with any compounds that contain or give rise to elemental chlorine during the manufacturing process. This includes the in-situ generation of chlorine from chloride compounds.

#### Demonstration of Conformance

**DoC 13.1:** Signed declaration from an Executive Officer of the applicant company that states the paper is not bleached using chlorine or compounds that contain or give rise to chlorine; or

**DoC 13.2:** Specifications of the bleaching chemicals used including all chemical names and CAS numbers.

**Criterion 14:** Where surfactants are used in the paper manufacturing process, these surfactants must be readily biodegradable in accordance with the Organisation for Economic Cooperation and Development (OECD) guidelines for the testing of chemicals.

Exceptions may be made for laminating paper.

### Demonstration of Conformance

**DoC 14.1:** Signed declaration from an Executive Officer of the applicant company that states no surfactants are used in the paper manufacturing process; or

**DoC 14.2:** Specifications of the surfactants used including all chemical names and CAS numbers.

### 3.8. Possible Radioactive Sources

This criterion applies to panel boards intended for indoor use that contain greater than 75% by mass (in total) materials generally held to be rich naturally occurring radioactive sources:

- Granites, pegmatites or gypsum;
- Slag, clinker, or other waste from smelting, or
- Ash from coal or peat.

**Criterion 15:** Panel boards containing the above materials must demonstrate radioactive safety by either of the following methods:

*a. Gamma Spectrometry (direct measurement)*

The product must emit less ionising radiation than the UNSCEAR global median for soils, namely:

- CK < 400 Bq / kg;
- CRa < 35 Bq / kg; and
- CTh < 30 Bq / kg.

Alternatively,

*b. Chemical Composition (indirect measurement)*

The finished product must not contain more than:

- U        8 mg / kg;
- Th      15 mg / kg; and
- K        5 % by mass.

### Demonstration of Conformance

**DoC 15.1:** Copy of documentation from the producer clearly outlining how the use of each chemical scheduled is limited and managed; and

*(One of the following is required as a minimum)*

**DoC 15.2:** Statement of the composition of the product showing that the composition contains less than 75 % of the stated raw materials; or

**DoC 15.3:** Gamma spectrometry results using crushed materials in a laboratory, accompanied by specification of a standard test method (e.g., ASTM C1402 – 04 using crushed materials) or technical details of the actual test method used. Results must be reported in units of Bq/kg; or

**DoC 15.4:** Gamma spectrometry results using a portable gamma spectrometer at the quarry. Results must be reported in units of Bq/kg; or

**DoC 15.5:** Results of any strong acid digest ICP-AAS or ICP-MS technique showing concentrations of U, Th and K less than the limits above.



## 4. EMISSIONS

### 4.1. Air Emissions - Formaldehyde

Products that contain formaldehyde-based additives, shall be subject to the following air emission limits for formaldehyde as measured using the Air Chamber, Desiccator or Perforator test methods. Raw timber and natural materials are exempt from this criterion. Compliance to the criteria below can be demonstrated in a number of ways: either by testing the overall emissions of the final product using the Air Chamber, Desiccator or Perforator test methods, or by testing the emissions of each component material and calculating the total emissions of the final product based on the quantity of individual components in the respective product. If the latter option is selected, testing should be conducted based on methods outlined in ASTM-D5116 or an equivalent: Small Scale Environment Chamber determination of organic emissions from indoor materials/products.

**Table 1: Limit values for formaldehyde emissions**

Test Protocol	Emission limit
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1mg/ L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/ L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/ L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A 5905:2003 - MDF, with use of testing Procedure JIS A 1460	≤1mg/ L
JIS A1901 (not applicable to Plywood)	≤1mg/ L
ASTM D5116	≤0.1 (+/- 0.0005) mg/m <sup>2</sup> hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419)	≤0.1 (+/- 0.0005) mg/m <sup>2</sup> hr at 3 days
ASTM D6007	≤0.12mg/m <sup>3</sup> **
ASTM E1333	≤0.12mg/m <sup>3</sup> ***
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m <sup>3</sup>
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m <sup>2</sup> hr
* mg/m <sup>2</sup> hr may also be represented as mg/m <sup>2</sup> /h	
** The test report must confirm that the conditions of Table 2 comply for the particular wood product type, the final results must be presented in EN 717-1 equivalent (as presented in the table) using the correlation ratio of 0.98.	
*** The final results must be presented in EN 717-1 equivalent (as presented in the table), using the correlation ratio of 0.98.	
Source: modified from Green Building Council of Australia 2010	

**Criterion 16:** Particleboard, MDF, plywood or timber veneer must conform to formaldehyde testing outlined in Australian Standard – AS 1859.

Particleboard and MDF panels are to be tested using the Desiccator method which follows Australian Standard – AS/NZS 4266.16 (2004) “Method 16: Formaldehyde emission-Desiccator method”. Particle board and MDF panels shall demonstrate a level below 1.0 mg/L.

Alternatively: Veneer and plywood must demonstrate a level below 1.0 mg/L when tested using Australian Standard – AS/NZS 2098.11 (2005) “Method 11: Methods of test for veneer and plywood” .



### Demonstration of Conformance

*(Only one of the following DoCs is required)*

**DoC 16.1:** A copy of test results of using the Desiccator method which follows Australian Standard – AS/NZS 4266.16 (2004) “Method 16: Formaldehyde emission-Desiccator method”, completed by a certified laboratory. Other internationally accepted test methods may be accepted as outlined in Table 1, or

**DoC 16.2:** A copy of test results following the Australian Standard – AS/NZS 2098.11 (2005) “Method 11: Methods of test for veneer and plywood”. Other internationally accepted test methods may be accepted as outlined in Table 1.

## 4.2. Air Emissions - VOC

*Volatile Organic Compounds (VOC) released by solvents and other substances contributes to poorer air quality in buildings. Indoor air quality is vital for occupant health. Thus, limiting the VOC content is important for good indoor air quality.*

**Criterion 17:** Products must not produce a Total VOC (TVOC) emission greater than 0.5 mg/m<sup>2</sup>/hr, or 0.5 mg/item/hr as applicable (as toluene equivalents) when tested to ASTM D5116 or ASTM 6670.

Samples must be tested within three days (72 hours) of manufacture and immediately after unpacking unless specified otherwise by the sampling protocols in the standards listed above. Samples must be packed for delivery to the lab to minimise off-gassing in accordance with laboratory instructions. If the sample is not tested within three days of manufacture, the accredited laboratory must be notified in order to ensure appropriate treatment of the sample in accordance with the sampling protocol of the relevant ASTM standard requirements.

For formaldehyde emissions, refer to Section 4.1 *Air Emissions – Formaldehyde* of this standard. For applicable test methods refer to the Demonstration of Conformance section of this criterion.

### Demonstration of Conformance

**DoC 17.1:** Test reports on VOC emissions using one of the following test methods showing the total VOC emission:

- a) ASTM D5116 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products; or
- b) ASTM D6670 Standard Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/Products.

**DoC 17.2:** If the sample is not tested within three days of receipt, confirmation from the accredited laboratory of the appropriate treatment of the sample in accordance with the sampling protocol of the relevant ASTM standard requirements.

**DoC 17.3:** A copy of the lab instructions for sample preparation for delivery to the laboratory.

For products requiring both formaldehyde emissions and TVOC emissions test results, a single test report may be suitable provided that the product was tested to ASTM D5116 or ASTM D6670 and the test report shows both the formaldehyde and TVOC results.

## 4.3. Water Emissions

**Criterion 18:** The total discharges to water from the production of latex, foam or rubber must be treated and decreased by 90% (measured as COD or TOC) in on-site or external sewage treatment works prior to being discharged to the receiving environment.

### Demonstration of Conformance

*(Only one the following DoCs is required)*

**DoC 18.1:** Copy of the Environmental Management System or similar showing testing requirements; testing frequency must be weekly and the final calculation must be the annual mean; or

**DoC 18.2:** Sampling for COD analysis shall take place after the operation of any on-site wastewater treatment.

## 5. HAZARDOUS MATERIALS AND PROHIBITED SUBSTANCES

*The criteria in this section are intended to address some of the main hazardous substances found within the product category, added to the product, or to ingredients during manufacturing. The intention is to reduce the use of hazardous materials and to prevent pollutants entering the environment.*

The requirements in this section apply to all materials in the finished product regardless of weight except for formaldehyde which is subject to the requirements in sections 4.1. This criterion is only applicable to fabrics if not assessed under 3.4, criterion 10a or 10b.

### 5.1. Hazardous Materials

**Criterion 19:** In order to promote the reduction of pollutant hazards in the manufacture, use, or disposal of products, the following substances (and where appropriate, their compounds) must not be added to products during manufacture:

- Heavy metals: antimony, arsenic, cadmium, chromium, copper, lead, mercury, selenium and tin;
- Halogenated organic substances including halogenated organic solvents (e.g. binding agents);
- Elemental chlorine;
- Phthalates;
- Phenols; and
- Potentially explosive chemicals.

Exemptions for a specific substance may be permitted only where the applicant can demonstrate that the substance:

- is necessary for performance or safety reasons; and
- is stored and managed in a manner that prevents environmental pollution during manufacture; and
- is chemically bound in a way that will prevent environmental pollution upon disposal by landfill or incineration.

The use of any heavy metal coatings or finishes is only permissible in exceptional circumstances where necessary on the grounds of heavy physical wear or in the case of parts that require particularly tight connections.

**Note:** All substances used in the manufacture of the product must also meet criteria 19 and 20.

Manufacturers that use potentially explosive chemicals must also demonstrate that there is an ISO 14001 Environmental Management System (EMS) in place that requires, at minimum, licensed handlers, and procedures for storage and handling.

#### Demonstration of Conformance

**DoC 19.1:** A schedule of the constituent chemical substances in g/kg used in the manufacture of the product that are classified as harmful, and relevant MSDS; and

**DoC 19.2:** Copy of documentation clearly outlining how each chemical is used, managed and stored; and

**DoC 19.3:** Where an exemption is claimed, a signed declaration from an Executive Director of the applicant company stating that the substance is chemically bound in the finished product, and the purpose for which the given substance is necessary; and

**DoC 19.4:** If claiming an exemption for potentially explosive chemicals, the applicant must also provide details of the ISO 14001 EMS in place.

**Criterion 20:** In order to address human and environmental health risks, substances which are classifiable as hazardous according to any of the following categories must not be added to furniture products or their components, or used in the manufacturing process.

- Acutely toxic substances including any R26-28 substances, R50-59 substances and Occupational Safety and Health Administration (OSHA) highly hazardous chemicals, toxics and reactives  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10647](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10647)
- Irritants and sensitising agents including R36-38 and R42-43 substances
- Carcinogens, teratogens and mutagens including:
  - any R45-49 substances,
  - IARC group 1 or 2A substances,
  - EU consolidated list of C/M/R category 1 or 2 substances
- Rotterdam Convention Annex III substances
- WHO pesticides 1a and 1b

Exemptions for a specific substance may only be granted for safety or performance considerations provided that

- the substance does not pose a health risk to the end user or manufacturing staff; and
- the applicant can demonstrate that exposure to the substance is below No Observable Adverse Effect Level or zero if NOAEL is unknown;
- the substance cannot enter the environment during the manufacturing process or as a result of use.

### Demonstration of Conformance

**DoC 20.1:** A schedule of the constituent chemical substances in g/kg used in the manufacture of the product that are classified as harmful, and relevant MSDS; and

**DoC 20.2:** Where an exemption is claimed, the applicant must provide a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.

**Criterion 21:** The following compounds, their functional derivatives or in-situ precursors must not be added to finished products, their component parts or be used at any stage of the manufacturing process, including as preparatory agents, cleaners or degreasers in the production facility:

- Polybrominated diphenyl ethers (PBDE), or short-chain (<13 C) chlorinated organic flame retardants;
- Pentachlorophenol (PCP);
- Bisphenol A;
- Tar oils (benzo (a) pyrene);
- Fluoropolymer additives;
- Aniline based amines;
- Bis(2-ethylhexyl)phthalate (DEHP), Dibutyl phthalate (DBP), Diallyl Phthalate (DAP) or n-butyl benzyl phthalate (BBP); and
- Aziridine or polyaziridines.

### Demonstration of Conformance

**DoC 21.1:** A schedule of the constituent chemical substances in g/kg used in the manufacture of the product that are classified as harmful, and relevant MSDS; or

**DoC 21.2:** A signed declaration from an Executive Director of the applicant (or manufacturing) company stating that the above compounds, their functional derivatives or in-situ precursors are not added to finished products, their component parts or be used at any stage of the manufacturing process, including as preparatory agents, cleaners or degreasers in the production facility.

## 6. PACKAGING, END OF PRODUCT LIFE AND PRODUCT STEWARDSHIP

*Previous sections of this standard apply to the characteristics of the product and the production process. This section is intended to address the impacts arising during the remainder of the product's life cycle.*

### 6.1. Replacement Parts

*Ensuring the availability of replacement parts is a simple way of allowing end-users to extend the useful life of an existing product, thus reducing the need for early replacement and minimising the associated environmental impacts of disposal and new production.*

**Criterion 22:** For those parts of a product that are subject to wear (e.g., hinges, locks, table leaves), functionally compatible replacements must be guaranteed for a period of at least five years. The manufacturer must make individual replacement parts available to end-users.

#### Demonstration of Conformance

**DoC 22.1:** Evidence that the end-user is made aware of the availability of replacement parts. This may be part of the care instructions, user manual, or other information physically provided with the product, and/or is made available on the company website; and

**DoC 22.2:** Signed declaration from an Executive Officer of the producer confirming a commitment to the provision of replacement parts.

### 6.2. Separability/Design for Disassembly

*Products that are difficult to separate into recyclable parts at end-of-product life are significantly more likely to contribute to landfill, even if the component materials are recyclable. Products designed to be separable into recyclable parts ensure that the end-user or disposer does not face unnecessary barriers to "doing the right thing" at the end of the products useful life, thus minimising the chances of some potentially significant environmental loads.*

**Criterion 23:** The entire product must be separable into recyclable or re-useable units. Products must be easily disassembled without the use of specialist tools. Component parts must be easily identifiable for separation. At the discretion of the auditor/s, instructions for the disassembly method may be required to be provided with the panel boards at point of sale where the method for disassembly is not immediately evident; and

**Criterion 24:** The product must not contain inseparable bonds between material types that cannot be processed together in the same recycling stream.

#### Demonstration of Conformance (for both Criteria 23 and 24)

*(Only two of the following DoCs are required)*

**DoC 24.1:** Where the product is comprised of more than two material types, instructions showing how disassembly can be achieved with commonly available tools; or

**DoC 24.2:** Engineer's report or disassembly demonstration. A demonstration may be performed as part of the site-visit or provided on DVD with an application; and

**DoC 24.3: Mandatory:** Details of materials used in the product. This will be established in DoC 4.1.



### 6.3. Resin Identification Codes

**Criterion 25:** All plastic parts weighing greater than 50g must be marked / stamped / embossed with an appropriate resin identification code promulgated by the Plastics and Chemical Industry Association (see <http://www.pacia.org.au/>) or in compliance with ISO 11 469.

*An exemption may be allowed for product(s) where the circumstances of the manufacturing process or the size and shape of the product restrict the use of the plastics resin identification code on the product. Exempt product needs appropriate information describing disposal methods for the product (including the relevant resin identification code) to be provided at the time of sale of the product to encourage further recycling.*

#### Demonstration of Conformance

*(Only one of the following DoCs is required)*

**DoC 25.1:** Visual assessment from a product sample or during a site visit; or

**DoC 25.2:** Direct and clear inclusion of this requirement the engineer's report or demonstration.

### 6.4. Coatings and Treatments

**Criterion 26:** Products and components must not be impregnated, labelled, coated or otherwise treated in a manner which would prevent post consumer recycling.

#### Demonstration of Conformance

**DoC 26.1:** Detailed description of each coating or treatment applied to the product or component, or declaration of non-use; and

**DoC 26.2:** Explanation of how each coating affects the recyclability of the product or component; and

**DoC 26.3:** Description of the end-of-life options for the coated or treated components (e.g., "this coated component may be recycled at <facility name>") with written confirmation from a recycler able to accept the component.

### 6.5. Minimum Resource Efficient Material Content

**Criterion 27:** The product or each component must consist of non-petrochemical, recycled or rapidly renewable components to one or more of the amounts as specified below.

**Table 2: Resource Efficient Content Requirements**

Resource Efficient Content	Percentage
Rapidly renewable materials - i.e. materials for which harvest occurs on a ten year cycle or less. Excludes virgin forest based products	80% of product or component by volume; or
Recycled materials	50% of the product or component by weight; or
Petrochemicals and petrochemical-derived materials including plastics must be manufactured under an EMS	100% of all petrochemical based materials; or
Materials of non-petrochemical origin	100% of product or component; or 90% non-petrochemical if the 90% of the product by weight is comprised of material sourced under a reputable certified scheme such as fibre sourced from plantation wood fibre with chain of custody evidence, or FSC or AFS certified forest.

For the purposes of this criterion coatings, upholstering textiles, and adhesives used for product assembly are not considered to be components.

Manufacturers must also collect data on material in a format that facilitates optimisation of production processes as follows:

- Material flows including material input/yield ratios for each key manufacturing process per operating hour;
- Material wastage and pre-consumer reuse rates;
- Percentage post consumer and pre-consumer recycled content in raw material by material type; and
- Percentage recyclable content in end product.

#### Demonstration of Conformance

**DoC 27.1:** Product specification details as per Table 2; and

**DoC 27.2:** For products claiming recycled material content, chain of custody evidence and contractor receipts showing volumes purchased; and

**DoC 27.3:** For petrochemicals, a copy of documentation regarding the EMS or an ISO 14001 certificate; and

**DoC 27.4:** A copy of data collected for the optimisation of production processes. \*This may be included in the engineers report.

## 6.6. Product Stewardship

**Criterion 28:** The applicant must:

- accept their product without additional cost (excluding transportation costs) for further recycling in a specialist recycling facility; or
- have arrangements with a local recycler to accept the product; or
- have an established product stewardship program. Products collected under the scheme shall not be disposed of in landfill or by incineration; or
- have contractual arrangements with a third party who are able to recycle or refurbish the item. Contractual arrangements with the third party should nominate the estimated volume of product to be processed annually.

Products that cannot be recycled may be reused as raw material input for energy production, provided that the product is comprised of at least 50% renewable material by weight and that all emissions and hazardous waste (including ash) are effectively managed to prevent environmental pollution.

Overall, the applicant must demonstrate that the necessary arrangements are in place to deliver the claims of the product stewardship program. Details relating to the above product stewardship program requirements and contact details for the programme operator(s) must also be made publically available from the official company website and/or in product information supplied at point of sale.

#### Demonstration of Conformance

**DoC 28.1:** Copy of instructions outlining the take back service including the costs, contact details of the take-back service; and

**DoC 28.2:** Copy of contractual agreements existing between the applicant with either of the following: third party suppliers, transport companies, charities, second hand retailers or refurbishment companies.

## 6.7. Product Information

**Criterion 29:** The manufacturer must provide written information to the consumer clearly stating:

- The intended use of the product;
- Instructions for correct use and storage so as to maximise the product lifetime;
- Maintenance instructions, if required. Maintenance instructions must not specify the use of any chemical or coating limited by any part of this standard; and



- Recycling instructions for the product end-of-life.

### **Demonstration of Conformance**

**DoC 29.1:** Copy of documentation to be supplied with the product clearly stating the required information.

## **6.8. Packaging Requirements**

**Criterion 30:** Halogenated plastics must not be used in product packaging.

**Criterion 31:** All packaging must either be comprised of 100% recycled material or be readily recyclable, compostable, or contain no coatings, impregnated chemicals or otherwise that would prevent recycling or composting.

### **Demonstration of Conformance (for Criteria 30 and 31)**

*(Only two DoCs are required)*

**DoC 31.1:** MSDS of packaging; or

**DoC 31.2:** Site inspection of final product packaging; and

**DoC 31.3:** Details of the recycled content or evidence that the material is compostable.



## 7. ENVIRONMENTAL CLAIMS

*This section addresses the need to ensure that any environmental claims made beyond the scope of this standard by the manufacturer are verifiable.*

### 7.1. Public Claims

**Criterion 32:** Public claims made by the applicant regarding the products environmental performance that are beyond the scope of this standard (other than GECA certified content) and shall be independently verified as compliant with ISO 14021: Environmental Labels and Declarations - Self Declared Environmental Claims' (Type II Environmental Labelling) requirements. Also refer to the GECA Rules for the Use of the Environmental Choice Australia Mark.

#### Demonstration of Conformance

**DoC 32.1:** Report or statement from the applicant listing all public environmental claims regarding the product by the applicant, demonstrating compliance to ISO14021; and

**DoC 32.2:** A signed declaration from an Executive Director of the applicant company stating that any environmental claims made by the company regarding the product in the future will be verified using ISO 14021 and/or the GECA certification.

## 8. SOCIAL AND LEGAL COMPLIANCE

*This section addresses compliance with law and social attributes of the producer and the applicant company. Criteria for social aspects of the product are required under the international standard on ecolabelling (ISO 14024), and is this section is common to all GECA standards. Equivalent sections are included in standards of all other GEN member ecolabelling bodies around the world. The social aspect partially addresses the third dimension of sustainability - Society. This was first understood by producers under the name "Corporate Social Responsibility" (CSR). In this standard social criteria include laws for equal opportunity, safety and protection of workers. GECA certification cannot be given to any company that illegally exploits workers or their families.*

### 8.1. Environmental Legislation

**Criterion 33:** The producer of the product and applicant company are required by law to comply with relevant environmental legislation and government orders at the Local, State, and Commonwealth levels, (if these have been issued). Where a producer is from an overseas jurisdiction, it is that jurisdiction's environmental regulations that apply. Where the producer has been found guilty of a breach of any environmental legislation or permit(s) within the last 2 years, there must be evidence of corrective action.

#### Demonstration of Conformance

**DoC 33.1:** Signed declaration from an Executive Officer of the organisation;

**DoC 33.2:** Any relevant permits granted by the EPA or an equivalent national, state or local body;

**DoC 33.3:** Evidence of compliance to all relevant state and federal legislation; and

**DoC 33.4:** Evidence of corrective action following a guilty verdict, if applicable.





## 8.2. Fair Pay

**Criterion 34:** All employees must be covered by a Federal or State award or a certified industrial agreement or a registered agreement as determined by the Australian Government Workplace Authority, or a State or Territory Workplace Relations Agency, or a workplace agreement in compliance with Workplace Relations Act 1996 Part 7 - The Australian Fair Pay and Conditions Standard. Where a producer is from an overseas jurisdiction, the jurisdiction's equivalent regulations apply.

### Demonstration of Conformance

**DoC 34.1:** Signed declaration from an Executive Officer of the organisation;

**DoC 34.2:** Text or template of a typical workplace agreement offered to employees of the company; and

**DoC 34.3:** Sample payslips.

## 8.3. Workplace Safety

**Criterion 35:** A producer/ applicant company must demonstrate general compliance with State or Territory Legislation concerning Occupational, Health and Safety and/or the Commonwealth Safety, Rehabilitation and Compensation Act 1988, where applicable. Where a producer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a producer/ applicant company has been found guilty of a breach of relevant legislation within the last 2 years, there must be evidence of corrective action.

### Demonstration of Conformance

**DoC 35.1:** Signed declaration from an Executive Officer of the organisation;

**DoC 35.2:** Copy of the company OH&S policy and procedures; and

**DoC 35.3:** Evidence of corrective action following a guilty verdict, if applicable.

## 8.4. Equal Opportunity

**Criterion 36:** The producer/ applicant company must demonstrate general compliance with 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. The producer cannot be in the list of 'named' or non-compliant employers under the Equal Opportunity for Women in the Workplace Act 1999. Where a producer/ applicant company is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a producer has been found guilty of a breach of relevant legislation within the last 2 years, there must be evidence of corrective action.

### Demonstration of Conformance

**DoC 36.1:** Signed declaration from an Executive Officer of the organisation;

**DoC 36.2:** Copy of relevant company policies and procedures;

**DoC 36.3:** Evidence of corrective action following a guilty verdict, if applicable; and

**DoC 36.4:** The auditor will verify that the company does not appear on the following list:

[http://www.eowa.gov.au/Reporting\\_And\\_Compliance/What\\_Happens\\_if\\_my\\_Report\\_does\\_not\\_Comply/List\\_of\\_Non\\_Compliant\\_Organisations.asp](http://www.eowa.gov.au/Reporting_And_Compliance/What_Happens_if_my_Report_does_not_Comply/List_of_Non_Compliant_Organisations.asp)



## 8.5. Lawful Conduct

**Criterion 37:** The producer/ applicant company must not have been convicted of any breach of criminal law, any breach of the Trade Practices Act 1974 or the Corporations Act 2001, including prosecution or de-listing by the Australian Stock Exchange (ASX, or international equivalent). Where a producer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a producer has been found guilty of a breach of relevant legislation within the last 2 years, there must be evidence of corrective action.

### Demonstration of Conformance

**DoC 37.1:** Signed declaration from an Executive Officer of the organisation; and

**DoC 37.2:** Evidence of corrective action following a guilty verdict, if applicable.

## 9. EVIDENCE OF CONFORMANCE

### 9.1. Demonstration of Conformance (DoC)

This section lists the sources of evidence which may be considered during an audit to establish conformance against GECA's standards. This list is provided in order to guide the applicant manufacturer through the requirements of the standard and to facilitate the preparation of an application.

The DoC requirements as specified along with each criterion in the standard define specific sources of evidence acceptable to GECA. In cases where criteria offer several DoC requirements, it is the sole decision of the appointed auditing body to choose the appropriate option in course of the preliminary stage of the assessment. If none of the recommended DoC requirements stipulated for a particular criterion in the standard is applicable for a product under assessment, then the appointed auditing body may choose an alternative but equivalent source of evidence. In cases where alternative sources of evidence have been accepted for the verification of the product, the auditing body will inform GECA by providing a report on the details as far as appropriate. GECA will use these information to continuously improve the DoC requirements stipulated by that standard.

The DoC requirements are summarised in Appendix A to assist applicants in preparing documentation for the verification process with a GECA Designated Auditor.



## APPENDIX A APPLICATION CHECKLIST

The Application Checklist guides the applicant through the application and verification process. An applicant may collect all information that are required for the verification of the product and attach the relevant documents to their application. The table below summarises the DoC requirements for each criterion in the standard.

Criterion No.	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/N or NA
<b>1. Standard Category Scope</b>				
	Standard category scope	Detailed description of the product(s) and explanation of applicability to the scope of the standard	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Fitness For Purpose</b>				
Criterion 2:	Product meets or exceed applicable standards and demonstrated fitness levels  (only two DoCs required)	<b>Mandatory:</b> Detailed description of the product(s) as it relates to Australian (or other) standards and	<input type="checkbox"/>	<input type="checkbox"/>
		Independent audit or test reports confirming conformance to relevant Australian (or other) standard or	<input type="checkbox"/>	
		Report or case study demonstrating fitness for purpose	<input type="checkbox"/>	
Criterion 3:	8 year commercial guarantee on the quality of the product	Copy of warranty documentation provided to customers	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Design For Environment</b>				
Criterion 4:	Responsible sourcing of timber fibre	Design specification or schedule for materials used in the product; and	<input type="checkbox"/>	<input type="checkbox"/>
		Chain of custody evidence; and	<input type="checkbox"/>	
		Total quantity of certified wood/fibre used in product annually; and	<input type="checkbox"/>	
		Evidence of certification from a responsible timber fibre source; and	<input type="checkbox"/>	
		Signed declaration and description of system used to ensure timber fibre is from traceable sources on an ongoing basis	<input type="checkbox"/>	
Criterion 5:	Wood must not be treated or impregnated with fungicides or insecticides classified by IARC as 2B	Signed declaration from applicant confirming conformance	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 6:	Latex or foam must not contain concentrations of 1, 3 butadiene greater than 1 ppm  (Only one DoC required)	Signed declaration that no latex or foam is used in the product; or	<input type="checkbox"/>	<input type="checkbox"/>
		Signed declaration of non use of 1, 3 butadiene from an Executive Officer of the company that produces the latex or foam; or	<input type="checkbox"/>	
		Test report using gas chromatography analysis and a flame	<input type="checkbox"/>	



		ionization detector		
		VOC test showing a specific line item for butadiene as zero, or a total "alkenes" line item as less than 0.05 mg/m <sup>2</sup> hr, or less than 0.05 mg/m <sup>3</sup>	<input type="checkbox"/>	
Criterion 7:	CFC, HCFC, HFC or methylene chloride must not be used as blowing agents in polyurethane.	Signed declaration describing the expansion process and whether CFC, HCFC, HFC or methylene chloride was used in the expansion process.	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 8:	Aniline based amines must not be added to the padding material	Signed declaration from supplier describing the manufacturing process and whether aniline based amines are used.	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 9:	Where organic tin catalysts are used in the production of polyurethane, the manufacturer must have in place a contract with a licensed or registered hazardous waste disposal company responsible for the correct disposal of the hazardous waste.	Copy of the signed contract between the polyurethane manufacturer and the licensed or registered hazardous waste disposal company outlining the disposal methods of the hazardous waste.	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 10:	Fabric must a) Be certified by GECA, the Environmental Choice New Zealand ecolabel, EU Flower ecolabel or the Nordic Swan ecolabel; or b) Satisfy the requirements of GECA Standard 19: Textiles; or c) Satisfy the requirements of the Hazardous Materials section of this standard.	Signed statement confirming no fabrics are used	<input type="checkbox"/>	<input type="checkbox"/>
		Schedule of fabrics used per product unit and a copy of ecolabel licence or	<input type="checkbox"/>	
		For non certified fabric a report from an GECA designated auditor stating timber meets GECA-19 Textiles standard or the Hazardous Materials section of GECA 04-2011	<input type="checkbox"/>	
Criterion 11:	All glass must be recyclable in local council recycling systems or by a specialist recycling facility as nominated in the Product Stewardship criterion. If the glass cannot be recycled in local council recycling systems the applicant must include notification to this effect in the product information in order to avoid contamination or glass that is recyclable in these systems.	If glass is used, the applicant must provide a specification of the type of glass used and details of any tints, colourings or coatings; and	<input type="checkbox"/>	<input type="checkbox"/>
		A copy of receipts or arrangements for the recycling of glass; and	<input type="checkbox"/>	
		A copy of receipts or arrangements for the recycling of glass in either a local council facility or specialist facility; and	<input type="checkbox"/>	
		A copy of the information provided with the product.	<input type="checkbox"/>	
Criterion 12:	Adhesives must be certified by a recognised ecolabel (Only two DoC required at minimum)	Signed declaration confirming no adhesives are used or Schedule of adhesives used and	<input type="checkbox"/>	<input type="checkbox"/>
		A copy of the relevant ecolabel certification or	<input type="checkbox"/>	
		For non certified adhesives a report	<input type="checkbox"/>	



		confirming adhesive are compliant with GECA -01 Adhesives	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 13:	Paper must not be bleached with any compounds or giving rise to elemental chlorine during the manufacture process (Only one DoC required)	Signed declaration confirming conformance to the criterion or	<input type="checkbox"/>	<input type="checkbox"/>
		Specifications of the bleaching chemicals used	<input type="checkbox"/>	
Criterion 14:	Surfactants used in the paper manufacturing process must be readily biodegradable (Only one DoC required)	Signed declaration stating no surfactants are used or	<input type="checkbox"/>	<input type="checkbox"/>
		Specifications of the surfactants used	<input type="checkbox"/>	
Criterion 15:	Panel boards containing the above materials must demonstrate radioactive safety (Only two DoC required at minimum)	Copy of documentation from the producer clearly outlining how the use of each chemical is limited and managed; and	<input type="checkbox"/>	<input type="checkbox"/>
		Statement of the composition of the product showing that the composition contains less than 75 % of the stated raw materials; or	<input type="checkbox"/>	
		Gamma spectrometry results using crushed materials in a laboratory, accompanied by specification of a standard test method or technical details of the actual test method used. Results must be reported in units of Bq/kg; or	<input type="checkbox"/>	
		Gamma spectrometry results using a portable gamma spectrometer at the quarry. Results must be reported in units of Bq/kg	<input type="checkbox"/>	
		Results of any strong acid digest ICP-AAS or ICP-MS technique showing concentrations of U, Th and K less than the limits above.	<input type="checkbox"/>	
<b>4. Emissions</b>				
Criterion 16:	Particleboard, MDF, plywood or timber veneers must have formaldehyde levels below set limits	Test results from test method stated or other internationally accepted test methods listed in Table 1.	<input type="checkbox"/>	<input type="checkbox"/>
Criterion 17:	Total VOC emissions must not exceed 0.5 mg/m <sup>2</sup> /hr or 0.5 mg/item/hr.	Test report confirming conformance to the criterion	<input type="checkbox"/>	<input type="checkbox"/>
		If samples were not tested within 3 days of receipt, confirmation from laboratory that appropriate treatment of samples were undertaken in accordance to ASTM requirements	<input type="checkbox"/>	
		Copy of laboratory instructions for preparation for delivery to the laboratory	<input type="checkbox"/>	



Criterion 18:	Total discharges to water from production of latex or foam must be treated and decreased by 90%  (only one DoC required)	Copy of EMS or similar showing testing requirements, frequency and calculations or	<input type="checkbox"/>	<input type="checkbox"/>
		Results from sampling for COD analysis	<input type="checkbox"/>	
<b>5. Hazardous Materials</b>				
Criterion 19:	Listed substances must not be added to products during manufacture  Exemptions may apply for safety or performance considerations.	A schedule of the constituent substances in g/kg used in the manufacturing process and relevant MSDS; and	<input type="checkbox"/>	<input type="checkbox"/>
		A copy of documentation clearly outlining how each chemical is used, managed and stored; and	<input type="checkbox"/>	
		Where an exemption is claimed, a signed declaration from an Executive Director of the applicant company stating that the given substance is necessary and does not pose a hazard;	<input type="checkbox"/>	
		If claiming an exemption for potentially explosive chemicals, documentation of the EMS in place.	<input type="checkbox"/>	
Criterion 20:	Products must not contain substances harmful to human health or the environment.  Exemptions may apply for safety or performance considerations.	A schedule of the constituent substances in g/kg used (as above); and	<input type="checkbox"/>	<input type="checkbox"/>
		Where an exemption is claimed, the applicant must provide a signed declaration stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented	<input type="checkbox"/>	
Criterion 21:	The listed compounds, their functional derivatives or in-situ precursors must not be added to finished products, their component parts or be used at any stage of the manufacturing process.	A schedule of the constituent substances in g/kg used (as above); and	<input type="checkbox"/>	<input type="checkbox"/>
		A signed declaration from an Executive Director of the applicant company stating that the above compounds, their functional derivatives or in-situ precursors are not added to finished products, their component parts or be used at any stage of the manufacturing process.	<input type="checkbox"/>	
<b>6. Packaging, End of Life and Product Stewardship</b>				
Criterion 22:	Replacements must be available for parts that are subject to wear, for a	Evidence that the end user is made aware of the offer and	<input type="checkbox"/>	<input type="checkbox"/>



	period of five years	Signed declaration confirming commitment to the provision of replacement parts	<input type="checkbox"/>	
Criterion 23:	Products must be easily disassembled and separable into recyclable or re-useable units. (Only two DoCs are required)	Where products are comprised of more two material types, instructions for disassembly are required or	<input type="checkbox"/>	<input type="checkbox"/>
		Engineers report or disassembly demonstration and	<input type="checkbox"/>	
		<b>Mandatory:</b> Details of material used in product	<input type="checkbox"/>	
Criterion 24:	Components parts in product must not contain inseparable bonds (only two DoCs required)	Where products are comprised of more two material types, instructions for disassembly are required or	<input type="checkbox"/>	<input type="checkbox"/>
		Engineers report or disassembly demonstration and	<input type="checkbox"/>	
		<b>Mandatory:</b> Details of material used in product	<input type="checkbox"/>	
Criterion 25:	Plastic weighing greater than 50g must be marked with appropriate resin identification codes (only one DoCs required)	Visual assessment during site visit or	<input type="checkbox"/>	<input type="checkbox"/>
		Engineers report or demonstration	<input type="checkbox"/>	
Criterion 26:	Products must not be impregnated, labelled or coated or otherwise treated in a manner that will prevent post consumer recycling	Detailed description of each coating and treatment applied or declaration of non-uses and	<input type="checkbox"/>	<input type="checkbox"/>
		Explanation of how each coating affects the recyclability of the product or component; and	<input type="checkbox"/>	
		Description of end-of-life options for coated products or	<input type="checkbox"/>	
Criterion 27:	The product or each component must consist of non-petrochemical, recycled or rapidly renewable components specified in Table 3 (Only two DoCs are required)	Product specification details and	<input type="checkbox"/>	<input type="checkbox"/>
		Chain of custody evidence and contractor receipts for recycled material content	<input type="checkbox"/>	
		For petrochemicals, a copy of documentation for the EMS or an ISO 14001 certificate; and	<input type="checkbox"/>	
		A copy of data collected	<input type="checkbox"/>	
Criterion 28:	A product stewardship program or similar must be in place for the product	Copy of instructions outlining take back service and	<input type="checkbox"/>	<input type="checkbox"/>
		Copies of contractual agreements allowing for the proper disposal of used products	<input type="checkbox"/>	
Criterion 29:	Products must be accompanied with listed product information	Copy of product information, supplied with product	<input type="checkbox"/>	<input type="checkbox"/>



Criterion 30:	Halogenated plastics must not be used in the packaging; and	MSDS of packaging or	<input type="checkbox"/>	<input type="checkbox"/>
		Site inspection of packaging and	<input type="checkbox"/>	
		Details of the recycling content or evidence that the material is compostable	<input type="checkbox"/>	
Criterion 31:	Packaging must either be comprised of 100% recycled material or be readily recyclable  (only two DoCs required)	MSDS of packaging or	<input type="checkbox"/>	<input type="checkbox"/>
		Site inspection of packaging and	<input type="checkbox"/>	
		Details of the recycling content or evidence that the material is compostable	<input type="checkbox"/>	
<b>7. Environmental Claims</b>				
Criterion 32:	Environmental claims outside the scope of this standard must comply with ISO 14021	Statement listing environmental claims regarding the product; and	<input type="checkbox"/>	<input type="checkbox"/>
		Signed declaration confirming conformance to the criterion	<input type="checkbox"/>	
<b>8. Social and Legal Compliance</b>				
Criterion 33:	Environmental Legislation	Signed declaration confirming conformance to the criterion and	<input type="checkbox"/>	<input type="checkbox"/>
		Permits granted by EPA or an equivalent national body (if applicable)	<input type="checkbox"/>	
		Evidence of compliance to all relevant legislation	<input type="checkbox"/>	
		Evidence of corrective action (if applicable)	<input type="checkbox"/>	
Criterion 34:	Fair Pay	Signed declaration confirming conformance to the criterion and	<input type="checkbox"/>	<input type="checkbox"/>
		Sample workplace agreement	<input type="checkbox"/>	
		Sample workplace agreement and payslips	<input type="checkbox"/>	
Criterion 35:	Workplace Safety	Signed declaration confirming conformance to the criterion and	<input type="checkbox"/>	<input type="checkbox"/>
		OH&S policies and procedures and	<input type="checkbox"/>	
		Evidence of corrective action (if applicable)	<input type="checkbox"/>	
Criterion 36:	Equal Opportunity	Signed declaration confirming conformance to the criterion and	<input type="checkbox"/>	<input type="checkbox"/>
		Relevant policies and procedures and	<input type="checkbox"/>	
		Evidence of corrective action (if applicable)	<input type="checkbox"/>	





Criterion 37:	Lawful Conduct	Signed declaration confirming conformance to the criterion and	<input type="checkbox"/>	<input type="checkbox"/>
		Evidence of corrective action (if applicable)	<input type="checkbox"/>	