



The New Zealand Ecolabelling Trust

Licence Criteria for Interior Boards and Lining Products for Buildings

EC-46-15

The New Zealand Ecolabelling Trust
PO Box 56533
Dominion Road
Mt Eden
Auckland
New Zealand

Ph: +64 9 845 3330
Fax: +64 9 845 3331
Email: info@enviro-choice.org.nz
Website: www.enviro-choice.org.nz

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Specification change history

Minor clarifications, corrections or technical changes made since the specification was last reviewed and issued in June 2015

Date	Version	Change

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Table of contents

1	Introduction	5
2	Background	6
3	Interpretation	7
4	Category Definition	8
5	Environmental Criteria	9
5.1	Legal Requirements	9
5.2	Wood and Fibre Sources	11
5.2.1	Solid Wood	11
5.2.2	Engineered Wood Products	12
5.2.3	Wood Fibre in Fibre Cement	13
5.2.4	Bamboo	14
5.2.5	Paper/Cellulose Fibre	15
5.2.6	Leather, Textiles, Natural Seed Fibres and Bast Fibres	15
5.3	Mineral Sources	16
5.3.1	Cement	16
5.3.2	Cement Alternatives (Non-Kiln Materials)	16
5.3.3	Sand, Aggregates and Minerals	17
5.4	Glass Wool and Mineral Wool	18
5.5	Sheet Glass	19
5.6	Metals	19
5.7	Plastics	20
5.7.1	Plastic Materials	20
5.7.2	Recycling of plastics	20
5.8	Gypsum Plasterboard Substrates	21
5.9	Padding Materials	21
5.10	Hazardous Substances	22
5.10.1	General Hazardous Substances	22
5.10.2	Heavy Metals	24
5.10.3	Crystalline Silica	25
5.10.4	Formaldehyde Binders and Adhesives	25
5.10.5	Manufacturing Adhesives	26
5.10.6	Surface Treatments	27
5.10.7	Preservative Treatments	29
5.10.8	Hazardous Substances in Engineered Wood and Bamboo	29
5.10.9	Hazardous Materials in Padding	30
5.10.10	Surfactants and Foam Inhibitors	32
5.10.11	Radioactivity	33
5.11	Energy Management	34
5.12	Waste Management	35
5.13	Packaging Requirements	36
5.14	Consumer Information	37
5.15	Product Stewardship	38
6	Product Characteristics	38
6.1	Fitness for purpose	38
7	Requirements and Notes for Licence Holders	39

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

1 Introduction

Environmental Choice New Zealand (ECNZ) is an environmental labelling programme which has been created to help businesses and consumers find products and services that ease the burden on the environment. The programme results from a New Zealand Government initiative and has been established to improve the quality of the environment by minimising the adverse and maximising the beneficial environmental impacts generated by the production, distribution, use and disposal of products, and the delivery of services. The programme is managed by the New Zealand Ecolabelling Trust (the Trust).

ECNZ operates to the ISO 14024:1999 standard "Environmental labels and declarations – Type I environmental labelling – Principles and procedures" and the Trust is a member of the Global Ecolabelling Network (GEN) an international network of national programmes also operating to the ISO 14024 standard.

ISO 14024 requires environmental labelling specifications to include criteria that are objective, attainable and verifiable. It requires that interested parties have an opportunity to participate and have their comments considered. It also requires that environmental criteria be set, based on an evaluation of the environmental impacts during the actual product or service life cycle, to differentiate product and services on the basis of preferable environmental performance.

The life cycle approach is used to identify and understand environmental issues (adverse or beneficial impacts) across the whole life of a product or service (within a defined product or service category). This information is evaluated to identify the most significant issues and from those to identify the issues on which it is possible to differentiate environmentally preferable products or services from others available in the New Zealand market. Criteria are then set on these significant and differentiating issues. These must be set in a form and at a level that does differentiate environmentally preferable products or services, is attainable by potential ECNZ licence applicants and is able to be measured and verified. As a result of this approach, criteria may not be included in an ECNZ specification on all aspects of the life cycle of a product or service. If stages of a product or service life cycle are found not to differentiate environmentally preferable products or services, or to have insufficient data available to allow objective benchmarking in New Zealand, those stages will not generally be included in criteria in the specification. For some issues, however, (such as energy and waste) criteria may be set to require monitoring and reporting. These criteria are designed to generate information for future reviews of specifications.

The Trust is pleased to publish this specification for Interior Lining Products. This specification sets out the requirements that Interior Lining Products will be required to meet in order to be licensed to use the ECNZ Label. The requirements include environmental criteria and product characteristics. The specification also defines the testing and other means to be used to demonstrate and verify conformance with the environmental criteria and product characteristics.

This specification has been prepared based on an overview level life cycle assessment, information from specifications for similar products from other GEN-member labelling programmes, relevant information from other ECNZ specifications and information made available from existing licence holders

This specification will be valid for a period of five years. Twelve months before the expiry date (or at an earlier date if required), the Trust will initiate a further review process for the specification.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

2 Background

Materials used for interior lining products may be sourced from natural and renewable resources or from non-renewable resources.

Harvesting of wood or bamboo, for use in an interior lining products can have significant impacts on forest environmental values and communities. Wood can be used in interior lining products either as a solid product or, as with bamboo, part of an engineered board. This includes the cellulose fibre used in composite boards such as fibre cement. Sourcing of wood, bamboo or fibre from sustainably managed and legally harvested forests or plantations will help to protect these values.

Natural materials such as sand and minerals that are used, for example, in the production of fibre cement or mineral and glass wool boards, are sourced through mining or quarrying. The potential impacts of mining or quarrying operations include: dust, noise and vibration, surface water discharges with elevated pH and suspended solids; and loss of amenity values and habitats requiring rehabilitation. Ensuring that these materials are sourced through mines or quarries with established remediation plans will help to reduce the impacts of the mining operations.

Other materials sourced from non-renewable resources, such as, steel, aluminium, plastic polymers from hydrocarbons, are generally recyclable, and supplies of post-consumer recycled materials are readily available in many cases. Encouraging reuse and recycling of non-renewable resources will also help to reduce the impacts associated with mining and extracting these resources.

The manufacturing of cement, which is used in interior linings boards such as fibre cement, uses significant quantities of energy and is a significant industrial source of carbon dioxide emissions. Criteria aimed at reducing these impacts help to reduce the impact that cement has in the lifecycle of an interior lining board.

Processing of the materials used in interior lining products can involve using hazardous substances including a wide range of preservatives, biocides, pesticides, dyes, heavy metal additives, degreasing and cleaning agents, formaldehyde, solvents, adhesives and flame retardants. Some of these substances are carcinogenic, mutagenic, toxic, ecotoxic, harmful to human reproductive systems or can contribute to global warming. Discharges of these substances from processing operations can have adverse impacts on the environment and people.

Some of the hazardous substances used in manufacturing can also become incorporated in the materials and can result in discharges from the finished lining product. These can have adverse effects on human health during use, for example, carcinogenic formaldehyde emissions in indoor environments from some wood panels, and emissions of other volatile organic compounds (VOCs).

Surface coatings or treatments are applied to many of the materials used in interior lining products. These can be important to provide protection, for example from corrosion, heat or fire, and help to prolong the useful life of the product. Surface coatings and treatments may involve using hazardous substances and restrictions on these will also help to reduce the adverse impacts of these processes on the environment.

Another significant potential environmental impact associated with the manufacture of interior lining products, results from using adhesives and resins. Controls on adhesives and resins used in manufacturing will help to reduce adverse impacts from these products.

As some of the most significant adverse impacts in the life cycle of interior lining products result from sourcing and producing the raw materials (including the associated use of hazardous substances), encouraging features that ensure products are durable and have a long life, will help to

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

reduce the overall burden of these products on the environment. Encouraging features that allow for reuse and recycling will also prolong the effective life of the raw materials used in manufacturing.

Of the GEN-member specifications reviewed, the Nordic Swan, Blue Angel (Germany) and Australian programmes have criteria specifically for interior lining products. Many of the criteria in the existing ECNZ Furniture and Fittings (EC-32-12) and Floor Coverings (EC-28-12) specifications have also been included in this specification, especially in relation to wood-based interior lining products. This specification also includes standard criteria on legal requirements, energy, waste and packaging which are being incorporated into all ECNZ specifications when they are developed or reviewed.

Based on a review of currently available information, the following product category requirements will produce environmental benefits by encouraging more sustainable production of raw materials, reducing the use of hazardous substances and their associated discharges and prolonging the useful life of the products. As information and technology change, product category requirements will be reviewed, updated and possibly amended.

3 Interpretation

Blowing agent means a substance (gas, liquid) that is able to produce cells in the plastic structure of a foam. This process can vary according to the property of the substance, e.g. a liquid may develop cells when changing into gas and a gas may expand when pressure is released.¹

CFCs means Chlorofluorocarbons.

Energy Management Programme means a programme to achieve and sustain efficient and effective use of energy including policies, practices, planning activities, responsibilities and resources that affect the organisation's performance for achieving the objectives and targets of the Energy Policy.

Engineered wood products are composites of wood and resin. Examples are medium density fibreboard (MDF), particleboard and plywood.

GEN means Global Ecolabelling Network.

Global Warming Potential (GWP) is a measure of how much a gas is estimated to contribute to global warming. It is a relative scale that compares the contribution of the gas to that of the same mass of carbon dioxide (CO₂), which has a GWP of 1, over a defined time frame. E.g. methane has a GWP of 21 (100-year time frame). This means that, over 100 years, methane will be approximately 21 times more heat-absorptive than CO₂ per unit of weight².

HCFCs means hydrochlorofluorocarbons.

HFCs means hydrofluorocarbons.

ISO means International Organisation for Standardisation.

Label means the Environmental Choice New Zealand Label.

Ozone Depleting Potential is a relative value that indicates the potential of a substance to destroy ozone gas (and thereby damage the Earth's ozone layer) as compared with the impact of a similar mass of chlorofluorocarbon-11 (CFC-11). CFC-11 is assigned a reference value of 1. E.g. a substance with an ODP of 2 is twice as harmful to the ozone layer as CFC-111.

¹ Published by the German Technical Cooperation – Programme Proklima and commissioned by the German Federal Ministry for Economic Cooperation and Development

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Recycled 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 generated in a process and capable of being reclaimed within the same process that generated it.

Safety Data Sheet means a document that describes the properties and uses of a substance, that is, identity, chemical and physical properties, health hazard information, precautions for use and safe handling information in accordance with the New Zealand Chemical Industry Council – Preparation of Safety Data Sheets Code of Practice.

Shall not be added means deliberate additions to a product or its components. This can be verified by declarations and examination of the input material documentation (SDS for steel, nylon or dyes for example).

Shall not be used during the production processes refers to any additions that are used in the process and that do not necessarily remain in the final product (for example degreasing, bleaching). This shall apply to the licence applicant/holder and first tier suppliers. This can be verified by declarations and SDS of substances used in production processes.

Wood Treatment means biocide, fungicide, insecticide or other preservative.

Waste Management Programme means a programme to achieve and sustain efficient and effective minimisation and disposal of waste including policies, practices, planning activities, responsibilities and resources that affect the organisation's performance for achieving the objectives and targets of the Waste Policy.

4 Category Definition

This category includes lining products intended for indoor use on walls or ceilings. These products may be in board, panel, sheet or tile form. They may or may not have acoustic insulation properties.

The interior lining board product must comprise at least 90 % by weight of one or more of the materials covered in clauses 5.2-5.9 of this specification. No other single material shall comprise more than 5 % weight.

The criteria do not cover weatherboard, exterior fibre cement board or other materials intended for use as outer cladding on buildings. They do not cover ceramic tiles.

The criteria do not cover gypsum plasterboard, flooring boards, boards for furniture and fittings, or linings used primarily to insulate against heat loss. These products are covered by the following ECNZ specifications: EC-19 Gypsum plasterboard; EC-28 Floor Coverings; EC-32 Furniture and Fittings; and EC-25 Thermal Building Insulants.

To be licensed to use the Label, an interior lining board must meet all of the environmental criteria set out in Clause 5 and product characteristics set out in Clause 6.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5 Environmental Criteria

5.1 Legal Requirements

Criteria

- a The product must comply with the provisions of all relevant environmental laws and regulations that are applicable during the product's life cycle.
- b Materials or processes involved in the production of product may not be under the direct control of a licence applicant/holder. Where this is the case, the licence applicant/holder must have and implement a formal supplier regulatory compliance management/assurance programme that:
 - includes documented requirements for suppliers to provide raw materials or services compliant with applicable environmental regulatory requirements (for example in supply contract conditions)
 - identifies suppliers, materials or processes that involve, or would be expected to be subject to a high level of regulatory control and/or which present a high potential risk of regulatory non-compliance
 - includes appropriate requirements (based on the risk assessment) for suppliers to provide assurance to the licence applicant/holder on the supplier's environmental regulatory compliance.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on regulatory compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation identifying the applicable regulatory requirements and demonstrating how compliance is monitored and maintained.

In cases where there is a high potential risk associated with environmental regulatory compliance and limited assurance provided by the licence applicant/holder's supplier regulatory compliance management programme, the Trust's assessor may require an on-site inspection at the relevant supplier's premises.

Explanatory Notes

Relevant laws and regulations could, for example, include those that relate to:

- producing, sourcing, transporting, handling and storing raw materials and components for manufacture
- manufacturing processes
- handling, transporting and disposing of waste products arising from manufacturing
- transporting product within and between countries
- using and disposing of the product.

The documentation required may include, as appropriate:

- procedures for approving and monitoring suppliers and supplies

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- information provided to customers and contractors regarding regulatory requirements.

Assurance and/or information that licence applicants/holders may require from their suppliers could include:

- evidence of a formal certified environmental management system (for example an ISO 14001 certificate) and supporting records on regulatory compliance (for example, copies of regulatory requirements registers, procedures to manage regulatory compliance, monitoring and evaluation reports on regulatory compliance, internal or external audits covering regulatory compliance and management review records covering regulatory compliance)
- copies of published environmental, sustainability and/or annual reports expressly addressing environmental regulatory compliance (for example verified Environmental Statements prepared under the European EMAS regulations)
- audit reports completed by independent and competent auditors addressing regulatory compliance (for example, reports for other eco-label licences or reports from regulator audits)
- participation by the supplier in the licence applicants/holders own supplier audit programme.

It is not intended to require licence holders to accept increased legal responsibility or liability for actions that are outside their control. The Trust's intention is to ensure any potential for environmental regulatory non-compliance associated with an ECNZ labelled product is managed to a level that minimises risk of reputation damage to the ECNZ label and programme.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2 Wood and Fibre Sources

The interior lining product shall meet the requirements for the relevant material set in criteria 5.2.1 to 5.2.6 if the wood or fibre material contributes more than 5 % of the weight of the finished product.

5.2.1 Solid Wood

Criteria

The wood included in the interior lining product must meet either requirement (a) or (b) below.

- a The wood component or product must be made from recycled wood.
- OR
- b A minimum of 50 % by weight of the wood in the component or product must be from plantations certified as sustainably managed forests under the Forest Stewardship Council (FSC) or equivalent schemes.
- AND
- The licensee must ensure that raw materials do not come from forest environments that are protected for biological and/or social reasons.
- c Companies relying on option (b) above must:
- maintain records of the certification of wood used in licensed products
 - have, implement and report on an ongoing programme to review options and increase FSC or equivalent certified content in licensed products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The applicant's statement shall be supported by documentation:

- recording the supplier, nature and geographical source of all wood inputs to the product
- demonstrating that the wood is recycled
- including certificates or other evidence on forest management certification and chain of custody (to confirm that the wood used is from a certified sustainably managed source)
- describing management systems in place to ensure that these requirements are consistently met
- describing the programme to review options and increase FSC or equivalent certified wood content in licensed products
- including an annual report to The Trust on this procurement programme.

NOTE: The Trust intends to monitor levels of forestry certification, with the expectation that the 50 % minimum requirement will be increased when a higher level is attainable.

Explanatory Notes

Please refer to the explanatory notes in part A of Appendix C which sets out the types of claims that can be used to demonstrate compliance with the criteria set in 5.2.1.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2.2 Engineered Wood Products

Criteria

- a Annually, either i, ii or iii must be fulfilled:
- i At least 30 % of all wood purchased for the engineered wood components or products must consist of wood from plantations licensed under the Forest Stewardship Council (FSC) or equivalent schemes.
OR
- ii At least 40 % of all wood purchased for the engineered wood components or products must consist of sawdust/ wood chips and /or by-products from wood processing operations, forest harvesting by-products and/or untreated demolition and/or recycled fibre.
OR
- iii At least 40 % of all wood purchased for the engineered wood components or products must consist of wood from a combination of sources described in (i) and (ii) above.
AND
- The licensee must ensure that raw materials do not come from forest environments that are protected for biological and/or social reasons.
- b Companies must:
- maintain records of the type and percentage of each wood fibre used in licensed products; and
 - have, implement and report on an ongoing programme to review options and increase recycled/waste/by-product fibre or FSC (or equivalent) certified content in licensed products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The applicant's statement shall be supported by documentation as follows.

- recording the supplier, nature and geographical source of all wood inputs;
- including certificates or other evidence on forest management and certification;
- describing the management systems in place to ensure that these requirements are consistently met;
- describing the programme to review options and increase recycled/waste fibre or FSC (or equivalent) certified wood content in licensed products; and
- including an annual report to The Trust on this improvement programme

NOTE: The Trust intends to monitor levels of forestry certification, with the expectation that the 30 % minimum requirement will be increased when a higher level is attainable.

Explanatory Notes

Please refer to the explanatory notes in part A of Appendix C which sets out the types of claims that can be used to demonstrate compliance with the criteria set in 5.2.2.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2.3 Wood Fibre in Fibre Cement

Criteria:

- a All virgin fibre or waste wood from native forests must be sourced from native forests that are certified under the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) as sustainably managed (or equivalent certification).
- b All virgin fibre or waste wood from plantations must be sourced from legally harvested plantations.
- c The licence holder must have and report to The Trust on a fibre procurement programme that has the aims of maximising the percentage of virgin fibre or waste wood that is FSC or PEFC (or equivalent) certified as sustainability managed forests.

NOTE: Waste Wood consists of sawdust/ wood chips and /or by-products from wood processing operations or forest harvesting by-products.

Verification:

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant):

- demonstrating the proportion of fibre types included in each product
- demonstrating the source of any waste wood fibre
- recording the supplier, nature and geographical source of all virgin fibre inputs
- including certificates or other evidence on sustainable forest management certification and chain of custody (to confirm the virgin fibre that is used is from a certified sustainably managed source)
- including certificates or other evidence of legal harvesting
- annual reports on the fibre procurement programme
- describing management systems in place to ensure that these requirements are consistently met.

The Trust will monitor reported fibre composition and procurement information with the intention of setting minimum percentages of certified fibre in these criteria at future reviews when higher levels are attainable.

Explanatory Notes

Please refer to the explanatory notes in part A and B of Appendix C which sets out the types of claims that can be used to demonstrate compliance with the criteria set in 5.2.3.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2.4 Bamboo

Criteria

- a A minimum of 50 % by weight of the bamboo in the interior lining product must be from plantations or forests certified as SFM under the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification schemes (PEFC), or equivalent schemes.
- b The ECNZ licence applicant/holder must ensure that all uncertified bamboo comes from legal sources. Bamboo raw material must not be derived from:
 - protected areas, or areas that are under investigation as to their protection status
 - areas where ownership or rights of exploitation are unclear
 - illegally harvested fibre.In addition, the bamboo management must not harm:
 - natural woodland, biodiversity, special ecosystems and important ecological functions
 - social and cultural preservation values.
- c Bamboo fibre must not come from bamboo species that appear on the Convention on International Trade in Endangered Species (CITES) list.
- d Companies must:
 - maintain records of the certification of bamboo fibre used in licensed products
 - have, implement and report on an ongoing programme to review options and increase FSC or PEFC or equivalent SFM-certified content in ECNZ licensed products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. The statement shall be supported by documentation (as relevant):

- recording the supplier, nature and geographical source of all bamboo inputs to the paper or stationery product
- including certificates or other evidence on forest management, SFM certification and chain of custody
- describing management systems in place to ensure that these requirements are consistently met
- describing the programme to review options and increase FSC or PEFC or equivalent SFM-certified bamboo content in ECNZ licensed products
- including annual reports to The Trust on this procurement programme.

The Trust intends to monitor levels of bamboo certification with the expectation that the minimum percentage requirements will be increased when a higher levels are attainable.

Explanatory Notes

Please refer to the explanatory notes in part A and B of Appendix C which sets out the types of claims that can be used to demonstrate compliance with the criteria set in 5.2.4.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.2.5 Paper/Cellulose Fibre

Criteria

- a Paper or cellulose fibre shall contain 100 % recycled content with 80 % post-consumer recycled, when calculated on a 12-month rolling basis and measured by weight of the final product.
- b The paper shall not be bleached for reuse. It is accepted that the paper may have been bleached during its previous lifecycle.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation including:

- demonstrating whether the fibre is pre- or post-consumer
- relevant production and quality control information.

5.2.6 Leather, Textiles, Natural Seed Fibres and Bast Fibres

Criteria

Leather, textile, natural seed fibre and bast fibre components, must meet the appropriate ECNZ requirements for EC-31-Textiles, Skins and Leather.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by a copy of the ECNZ certificate or assessment report demonstrating compliance for the leather or textiles used.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.3 Mineral Sources

The interior lining product shall meet the requirements for the relevant material set in criteria 5.3.1 to 5.3.4 if the mineral source material contributes more than 5 % of the weight of the finished product.

5.3.1 Cement

Criteria

Cement used in the manufacturing of a fibre cement board must meet the ECNZ requirements for EC-42 Portland Cement and Portland Cement Blends with the exception of clause 5.2.2 Non-Kiln Materials.

Verification:

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by a copy of the ECNZ certificate or assessment report demonstrating compliance for the cement used.

5.3.2 Cement Alternatives (Non-Kiln Materials)

Criteria

- a Licence applicants/holders must have and implement a formal process to increase the use of cement alternatives in the licensed products or use of non-kiln materials in the cement blend used in licensed products.
- b Licence holders must report annually to The Trust on the volume of cement alternatives used, including:
 - percentage and type of cement alternative material used in specific product
 - results of any chemical analysis for contaminants undertaken on any cement alternative material used, or determined to be inappropriate.

Verification

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant):

- demonstrating the proportion of cement alternative materials used in each product
- demonstrating the source and type of any cement alternatives used
- including results of any chemical analysis for contaminants undertaken on any cement alternative material used, or determined to be inappropriate
- annual reports on the cement alternative programme
- describing management systems in place to ensure that these requirements are consistently met.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Explanatory Notes:

The specification does not require the testing of cement alternative materials for contaminants. However, if any testing is undertaken either voluntarily or as a requirement of a resource consent or permit, then the results are to be reported to The Trust.

Cement alternatives may contain heavy metal and radioactive contaminants. The licence applicant/holder will be required to demonstrate the product complies with the heavy metal and radioactive limits set within the hazardous substance criteria in 5.10.

5.3.3 Sand, Aggregates and Minerals

Criteria

- a Virgin mined or quarried materials must come from operations with documented mine or quarry remediation/restoration programmes.
- b The applicant/licensee must ensure that natural raw materials do not come from environments that are protected for biological and/or social reasons.
- c Mines and quarries from which materials are obtained for an ECNZ-licensed board must have and implement management plans including any policies and management procedures to minimise adverse effects from the following potential impacts:
 - noise
 - vibration
 - dust
 - discharges to surface water, groundwater, oceans or land.

NOTE: Sand sources may contain heavy metal and radioactive contaminants. The licensed product will be required to comply with the heavy metal and radioactive limits set within the hazardous substance criteria in 5.10.

Verification

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be supported by documentation (as relevant):

- certificates or other evidence of a documented mine remediation programme
- description of the raw material procurement management systems in place to ensure that the requirement in a) and b) are consistently met
- copies of the relevant management plans required by c)
- records demonstrating the management plans are being effectively implemented (including monitoring results).

NOTE: Where a component of the interior lining board is manufactured by others, then the component will be considered to meet the requirements of 5.3.3 if:

- The component manufacturer holds an ECNZ licence under a specification with a criterion equivalent to 5.3.3; AND

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- The component manufacturer provides confirmation that the raw materials and supply chain for the component are identical to the raw materials and supply chain for the ECNZ-licensed product.

An example of this would be sand used in glass wool used in the interior lining board for its acoustic properties that has the same raw materials and supply chain as glass wool that is licensed under EC-25 Thermal Insulation for its thermal properties.

Documentation must be provided identifying the specific component(s) used and confirming that the raw materials and supply chain for the component are the same as the raw materials and supply chain for the component manufacturer's ECNZ-licensed product.

5.4 Glass Wool and Mineral Wool

The interior lining product shall meet the requirements for the relevant material set in criteria 5.4 if the Glass and or Mineral wool contributes more than 5 % of the weight of the finished product.

Criteria

- a Products containing mineral and/or glass wool must meet the following minimum recycled content requirements, when calculated on a 12-month rolling basis and measured by weight of the material:
 - 65 % for glass
 - 40 % for mineral, rock or slag
- b Non recycled sand and rock must meet the requirements in 5.3.3.
- c Licence holders must:
 - maintain records of the types and percentages of recycled content used in licensed products
 - have, implement and report an ongoing programme to review options and increase recycled content in licensed products until an optimal level is achieved, as determined by the required performance characteristics of the product or availability of recycled materials.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- documentation including records from the previous 12-month period to demonstrate that the recycled content limits are being met
- information about the recycled content review programme, including performance testing, if relevant, and an annual report as required by b)
- description of the raw material procurement management systems in place to ensure that the requirement in a) and b) are consistently met.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.5 Sheet Glass

The interior lining product shall meet the requirements for the relevant material set in criteria 5.5 if the glass material contributes more than 5 % of the weight of the finished product.

Criteria

- a No lead glazing, crystal glass, mirror glass, wire-reinforced glass or laminated glass shall be used.
Wire-reinforced or laminated glass is exempt from these requirements if it is required by law in order to meet specific safety requirements.
- b Glass parts of the lining product must be able to be easily replaced.
- c If the glass component is greater than 20 % by weight of the finished product, licence holders must:
 - maintain records of the types and percentages of recycled glass used in licensed products
 - have, implement and report on an ongoing programme to review options and increase recycled glass content in licensed products until an optimal level is achieved, as determined by the required performance characteristics and availability of recycled materials.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation of product specifications, details of optimal levels of recycled content, production methods and quality controls, including:

- records of the types of glass used
- initial and ongoing annual reports to The Trust on recycled glass used

5.6 Metals

The interior lining product shall meet the requirements for the relevant material set in criteria 5.6 if the metals used contribute more than 5 % of the weight of the finished product.

Criteria

It must be possible to separate the metal from other materials in the product without the use of special tools.

This requirement does not apply to metals used in surface treatments.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation such as product specifications, production methods and quality controls.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.7 Plastics

The interior lining product shall meet the requirements for the relevant material set in criteria 5.7 if the plastic materials contribute more than 5 % of the weight of the finished product.

Polymers used as padding material and textiles are not to be included in the calculation to determine if plastics make up 5 % by weight of the lining product.

5.7.1 Plastic Materials

Criteria

- a Plastic parts in the lining product shall have documentation setting out the type of plastics and portion of filler and/or reinforcement.
- b Licence holders must:
 - maintain records of the types and percentages of recycled plastic used in licensed products
 - have, implement and report on an ongoing programme to review options and increase recycled plastic content in licensed products until an optimal level is achieved, as determined by the required performance characteristics and availability of recycled materials.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation of product specifications, strength/durability test results for parts with recycled content, production methods, calculations and quality controls including:

- records of the types of plastics used
- initial and ongoing annual reports to ECNZ recycled content in plastics.

NOTE: The Trust intends to monitor recycled plastic availability and content in licensed products with the expectation that a minimum recycled content limits will be set in future.

5.7.2 Recycling of plastics

Criteria

- a Plastic parts that are recyclable or reusable must be able to be separated from other materials in the product without the use of special tools.
- b Plastic parts > 100 g shall be labelled in accordance with ISO 11469 or a similar standard to indicate the plastic type.

Exemptions may be made for products where the nature of the manufacturing process or the size and shape of the product prevent or restrict labelling. Where a product or component is exempt, information about the plastic types and recyclability shall be available to those purchasing, using or disposing of the product.
- c Plastic parts must not be treated or coated in a way that would prevent recycling or reuse.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation such as product specifications, production methods, information provided to consumers and quality controls.

5.8 Gypsum Plasterboard Substrates

Criteria

Gypsum plasterboard substrates must meet the appropriate ECNZ requirements for Gypsum Plasterboard (EC-19-13 or any more recent version).

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by a copy of the ECNZ certificate or assessment report demonstrating compliance for the gypsum plasterboard used.

5.9 Padding Materials

Criteria

- a A minimum of 90% of total waste from production of the padding materials is to be recyclable.
- b Licence holders must maintain records of waste from production processes for licensed products. These records must include information on each waste component's ability to be recycled and volumes of waste that are recycled.
- c Licence holders must have, implement and report on an ongoing programme to maximise the proportion of waste from production of padding materials that is recycled.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation including:

- details of production waste and its recyclability
- volumes of wastes recycled
- waste recycling programme.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.10 Hazardous Substances

5.10.1 General Hazardous Substances

NOTE: These criteria apply to all materials in the product and all processes used by the licence applicant/ holder, their component suppliers and sub-contractors, unless otherwise specified.

The following are exempt from Clause 5.10.1:

- Small parts such as screws, bolts etc. unless they are parts that are intended to come in frequent contact with skin.
- Trace levels (<0.1 % by weight) of substances reported in SDS to be potentially present as contaminants or impurities in raw materials or component substances.
- Recycled content that may have been treated or produced with the prohibited substances during its previous lifecycle.
- These general requirements do not apply to substances that are identified in substance-specific criteria elsewhere in this specification.

Criteria

- a No substances shall be added to the interior lining product or used during the production processes that are classified as carcinogenic, harmful to the reproductive system or genetically harmful.

The following are exempt from this clause:

- Wood dust (which is physically and chemically bound in the product).
- Surface pre-treatment chemicals containing up to 2% methanol used for metal parts that require high scratch, wear or corrosion resistance.
- Residual methanol present in raw materials.
- Borax/Boron used in glass wool fibre.

NOTE: Under current HSNO classifications, GHS classifications or EU Risk phrases, this clause will preclude the use of certain phthalates including DEHP and DBP, certain aziridine compounds, certain powder coating preparatory treatments and certain plastics.

- b Where a pre-treatment chemical is being used under the exemption in a) for metal parts requiring high scratch, wear or corrosion resistance, the applicant/licence holder, must provide evidence of:
- the need for this performance on the parts concerned; and
 - an ongoing programme to work with chemical suppliers to identify and, when available, use pre-treatment chemicals that will meet the requirements of clause 5.10.1a.
- c Where Borax/Boron is being used in the production of glass wool Licence holders are required to have and implement an ongoing programme to review options to replace Borax (boron) in licensed products and report annually to The Trust on the progress of the programme.
- d Wall lining products must not be manufactured from more than 0.1% by weight (in total) of substances that are classified as acutely toxic, skin irritants or respiratory or contact sensitizers.

The following are exempt from this clause:

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- Substances or materials which change their properties through processing and thus become no longer bioavailable (ie physically and chemically bound in the product), or undergo chemical modification in a way that removes the previously identified hazard.
- e Halogenated organic substances or solvents, including methylene chloride, binding agents and flame retardants, shall not be added to interior lining board products or used during the production processes.

OR

Manufacturers of ceiling tiles who use halogenated organic binding agents must implement a programme to phase out the use of these substances and must report annually to The Trust on the progress of the phase out.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- identifies hazardous substances used in materials and production processes (including CAS numbers and Safety Data Sheets, where available)
- identifies the classifications that apply to these substances, confirming all meet criteria
- includes information (which may include supplier declarations and supporting evidence) demonstrating no banned substance is added or used
- includes an annual report for the phase out of halogenated organic binding agents in ceiling tiles, if relevant
- includes relevant test reports.
- Where a pre-treatment chemical is being used under the exemption for metal parts requiring high scratch, wear or corrosion resistance, the applicant/licence holder, must provide evidence of:
 - the need for this performance on the parts concerned
 - an ongoing programme to work with chemical suppliers to identify and, when available, use pre-treatment chemicals that will meet the requirements of clause 5.10.1a.
- Where Borax/Boron is being used in the production of glass wool Licence holders are required to have and implement an ongoing programme to review options to replace Borax (boron) in licensed products and report annually to The Trust on the progress of the programme.

Compliance with the requirements in a) and b) may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A) for carcinogens, mutagens, reproductive toxins, toxins, respiratory sensitisers or contact sensitisers.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.10.2 Heavy Metals

Criteria

The raw materials used in the lining product must contain less than the following amounts of heavy metals:

- Arsenic 17 mg/kg
- Inorganic lead 160 mg/kg*
- Cadmium 0.8 mg/kg
- Inorganic mercury 200 mg/kg**
- Chrome (III) 290 mg/kg

* This limit is for inorganic lead and does not apply to elemental (pure) lead.

** This limit is for inorganic mercury and does not apply to elemental (pure) mercury

Verification

Conformance with these requirements shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation, including test results for heavy metals in raw materials.

Test Methods for heavy metals

Metals should be extracted from an air dried sample in accordance with US-EPA Method 200.2 for "Total Recoverable Metals". The extracted metals should be analysed by ICP-MS (Inductively Coupled Plasma Mass Spectroscopy).

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.10.3 Crystalline Silica

Criteria

Where sand and minerals are being used in the manufacturing of a product:

- a effective measures must be in place to control exposure of workers to crystalline silica; and exposure to crystalline silica shall be demonstrated to result in an acceptable level of impact on human health.
- b Licence holders must:
 - develop, document and implement an ongoing continual improvement programme to reduce crystalline silica and impacts resulting from exposure to crystalline silica in the workplace
 - provide an annual report to The Trust on the continual improvement programme and its implementation in the production facility where the ECNZ-licensed fibre cement products are manufactured.

Verification

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation such as:

- Test results of workplace exposure. These should include results for average and maximum exposure over an eight-hour working day. In New Zealand, exposure of crystalline silica must meet the Workplace Exposure Standard Time Weighted Average (WES-TWA) for cristobalite crystalline silica as respirable dust of 0.1 mg/m³ and quartz crystalline silica as respirable dust of 0.2 mg/m³.
- An annual report on the crystalline silica continual improvement programme.

5.10.4 Formaldehyde Binders and Adhesives

Criteria

Licence holders must have, implement and report on an ongoing programme to review options to replace formaldehyde-containing binders and adhesives in licensed products and report annually to The Trust on the progress of programme.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- safety data sheets (SDS) for all binders used
- annual report to The Trust on replacement of formaldehyde-containing binders and procurement of recycled content.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Explanatory Notes:

Formaldehyde binder and adhesives are also required to meet the limits addressed in applicable criteria, 5.10.5 Manufacturing Adhesives and 5.10.8 Hazardous Substances in Engineered Wood and Bamboo Products.

5.10.5 Manufacturing Adhesives

Criteria

- a No adhesives that are classified toxic shall be used in the interior lining products.
- b If there is more than 50g (wet adhesive) in the finished product, the adhesive must not be classified as ecotoxic.
- c The adhesives may contain a maximum of 5 % organic compounds with boiling point <260 °C.
- d The adhesive must not be formulated with alkylphenolethoxylates, alkylphenols or halogenated solvents.
- e The content of free formaldehyde in adhesives used in the product shall not exceed 0.5 % by weight of the adhesive.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- identifies the adhesive products used (including CAS No, where available)
- includes Safety Data Sheets for the adhesives
- identifies classifications that apply to each adhesive
- demonstrates that thresholds for groups or individual hazardous substances are not exceeded in each adhesive product
- includes composition data and calculations for formaldehyde in adhesives.

Compliance with the requirements in a) and b) may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A) for toxins or ecotoxins.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.10.6 Surface Treatments

The criteria below apply to the surface treatments of each material type where that material type amounts to more than 5 % by weight in the finished product.

Criteria

- a Preparatory treatment and surface treatment chemicals must not be classified as toxic or allergenic by inhalation.
- b Metals must not be coated with cadmium, chrome, nickel or tin or their compounds.
NOTE: In exceptional cases, metal surfaces may be treated with chromium or nickel where this is necessary on the grounds of heavy physical wear or in the case of parts that require particularly tight connections. Such chromium plating should not use chromium VI compounds. This exemption does not include parts that are intended to come into frequent contact with skin.
Small parts such as screws, bolts etc. are exempt from the requirements in b) unless they are parts that are intended to come in frequent contact with skin.
- c The content of organic solvents in treatment substances for metals must not exceed 5% w/w
- d The content of aromatic solvent in products must not exceed 1 % w/w.
- e The surface treatment process for wood, engineered wood and bamboo must meet either (i) or (ii).
 - i Content and classification of the surface treatment agents:
The treatment substances must not:
 - be classified ecotoxic
 - contain more than 7 % by weight x efficiency of organic solvents (boiling point <250oC).
 - OR
 - ii Calculation of applied quantity of ecotoxic and organic solvent substances
 - The interior lining product may be treated with a maximum of 14 g/m² of substances that are classified as ecotoxic
 - The amount of organic solvent (boiling point <250oC) added in the surface treatment must not exceed 35 g/m².**NOTE:** these options are to provide greater flexibility in the choice of surface treatment systems. It should not to be interpreted that e)i) is for non-ecotoxic substances and e)ii) is for ecotoxic substances.
- f Where a surface treatment is applied and the treatment substance or preparation contains formaldehyde, formaldehyde emissions from the treated component shall not exceed 1.0 mg/l. (For surface laminations onto a wood-based panel, the substrate edges must be sealed for testing).

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

- lists all hazardous substances and products included in each preparatory or surface treatment of the lining product (including CAS No, where available)
- includes Safety Data Sheets for each of the substances
- identifies classifications that apply to each substance
- demonstrates that thresholds for groups or individual hazardous substances are not exceeded
- demonstrates the formaldehyde emission levels are met.
- Compliance with the requirements in a) may be demonstrated by providing data indicating that the surface treatment does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A) for toxins or respiratory sensitisers.
- Compliance with d) shall be demonstrated by providing test reports from a competent laboratory using the relevant test method below.
- For e), the following efficiency figures are to be used:

– Spray coating without recycling	50%
– Spray coating with recycling	70%
– Spray coating, electrostatic	65%
– Spraying, bell/disc	80%
– Roller coating	95%
– Curtain coating	95%
– Vacuum coating	95%
– Dipping	95%
– Rinsing	95%

For example for spray coating without recycling, the organic solvent content limit will be $7/100 \times 50\% = 3.5\%$.

Test Methods

- AS/NZS 4266.16 Reconstituted wood-based panels – Methods of test –Formaldehyde emission – Desiccator method.
- AS/NZS 2098.11 Determination of formaldehyde emission from plywood.
- AS/NZS 4357.4 Structural laminated veneer lumber- Part 4 Determination of formaldehyde emissions.

Explanatory Note:

Surface treatments are required to also meet the General Hazardous Substances requirements in 5.10.1.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.10.7 Preservative Treatments

Criteria

- a Plywood and wooden lining boards may only be treated with preservatives in accordance with the requirements of the New Zealand Building Code and to the minimum acceptable level in New Zealand Standard NZS 3602 “Timber and wood based products for use in building”, based on its intended use.
- b Other products (or uses of plywood and wood) not included in NZS 3602 must not be treated with preservatives (e.g. fungicides, insecticides, fire protection agents).

NOTE: NZS 3602 only requires treatment of plywood for some indoor uses. There are no minimum treatment requirements for indoor use of other engineered wood products.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation identifying any treatment processes or chemicals that are used.

5.10.8 Hazardous Substances in Engineered Wood and Bamboo

Criteria

- a Engineered wood and bamboo products must not contain substances exceeding 0.5 g/Kg that are classified toxic or allergenic by inhalation. Wood dust (which is physically and chemically bound in the product) is exempt from this requirement.
- b Engineered wood and bamboo products must not contain substances exceeding 0.5 g/Kg panel that are classified as ecotoxic.
- c Where wood/bamboo-based materials (excluding raw timber) comprise more than 5 % by weight of interior lining board product, the formaldehyde emissions from the wood-based components shall not exceed the following limits:
 - 1.5 mg/l for raw particleboard
 - 1.0 mg/l for other engineered materials.

NOTE: these limits applied as per AS/NZS 1859, i.e. 95 percentile compliance, Desiccator method. These limits are met by E1 particleboard and MDF or other engineered wood material as defined by AS/NZS 1859.

- d Licence holders must:
 - Document, implement and report on a programme to monitor resin and manufacturing technology
 - Develop, maintain, implement and report on an improvement programme to produce lower formaldehyde emission products
 - Record performance of manufacturing processes (including achieved product emission levels and product reject rates).

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation that:

- lists all hazardous substances and products included in each product used (including CAS No where available)
- includes Material Safety Data Sheets for hazardous substances
- identifies the classifications that apply to each substance, including methanol in the resin
- demonstrates that thresholds for groups or individual hazardous substances are not exceeded in each product
- includes test reports for formaldehyde
- where applicable includes documentation for the implemented formaldehyde emission programmes.

Compliance with the requirements in a) and b) may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A) for toxins, ecotoxins or respiratory sensitisers.

Compliance with c) shall be demonstrated by providing test reports from a competent laboratory using the relevant test method below.

Test Methods

- AS/NZS 4266.16 Reconstituted wood-based panels – Methods of test –Formaldehyde emission – Desiccator method.
- AS/NZS 2098.11 Determination of formaldehyde emission from plywood.
- AS/NZS 4357.4 Structural laminated veneer lumber- Part 4 Determination of formaldehyde emissions.

5.10.9 Hazardous Materials in Padding

Criteria

- a Padding materials shall not be manufactured using blowing agents with a global warming potential (GWP) of more than 140, measured over a 100 year time frame.
- b Blowing agents must have an ozone depleting potential (ODP) of zero.
- c Chlorophenols, PCB or organic tin compounds must not be used during storage or transport of padding materials.
- d Chloro-organic bleaching agents must not be used in production of padding materials.
- e No aniline based amines or pigments dispersed in alkyl phenols are to be added to polyurethane foams.
- f Dyes may only be used for distinguishing between different qualities within the same range of padding materials.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

g Azo dyes shall not be used that may cleave (or bind) to any one of the following aromatic amines:

4-aminodiphenyl	(92-67-1)
Benzidine	(92-87-5)
4-chloro-o-toluidine	(95-69-2)
2-naphthylamine	(91-59-8)
o-amino-azotoluene	(97-56-3)
2-amino-4-nitrotoluene	(99-55-8)
p-chloroaniline	(106-47-8)
2,4-diaminoanisol	(615-05-4)
4,4'-diaminodiphenylmethane	(101-77-9)
3,3'-dichlorobenzidine	(91-94-1)
3,3'-dimethoxybenzidine	(119-90-4)
3,3'-dimethylbenzidine	(119-93-7)
3,3'-dimethyl-4,4'-diaminodiphenylmethane	(838-88-0)
p-cresidine	(120-71-8)
4,4'-methylene-bis-(2-chloraniline)	(101-14-4)
4,4'-oxydianiline	(101-80-4)
4,4'-thiodianiline	(139-65-1)
o-toluidine	(95-53-4)
2,4-diaminotoluene	(95-80-7)
2,4,5-trimethylaniline	(137-17-7)
4-aminoazobenzene	(60-09-3)
o-anisidine	(90-04-0)
2,4-Xylidine	(87-62-7)
2,6-Xylidine	(95-68-1)

h Organic tin catalysts may only be used in the production of flexible polyurethane if the manufacturer has in place a contract with a hazardous waste disposal company for the disposal of the waste and can demonstrate that the hazardous waste has been correctly disposed of.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that:

- identifies the hazardous substances and products used in production of padding (including CAS No where available)
- includes Safety Data Sheets for relevant hazardous substances
- identifies the blowing agents used and their ODPs and GWPs
- includes details of the waste disposal arrangements for organic tin catalysts, if relevant.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

GWP and ODP of common blowing agents are given in Appendix B. For determining the ODP and GWP of substances not included in Appendix B, reference should be made to one of the following:

- Daniel, J.S., and G.J.M. Velders (Lead Authors), A.R. Douglass, P.M.D. Forster, D.A. Hauglustaine, I.S.A. Isaksen, L.J.M. Kuijpers, A. McCulloch, and T.J. Wallington, Halocarbon scenarios, ozone depletion potentials, and global warming potentials, Chapter 8 in Scientific Assessment of Ozone Depletion: 2006, Global Ozone Research and Monitoring Project— Report No. 50, 572 pp., World Meteorological Organization, Geneva, Switzerland, 2007. http://www.wmo.ch/pages/prog/arep/gaw/ozone_2006/ozone_asst_report.html
- US EPA Ozone Depleting Substances website <http://www.epa.gov/ozone/science/ods/index.html>
- Forster, P., V. Ramaswamy, P. Artaxo, T. Berntsen, R. Betts, D.W. Fahey, J. Haywood, J. Lean, D.C. Lowe, G. Myhre, J. Nganga, R. Prinn, G. Raga, M. Schulz and R. Van Dorland, 2007: Changes in Atmospheric Constituents and in Radiative Forcing. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>

If alternative reference sources are used, ECNZ will require full details of the reference source or a copy of the document, if it is not readily and freely available.

5.10.10 Surfactants and Foam Inhibitors

Criteria

- a Where surfactants are used for de-inking recycled paper input, these surfactants shall be readily biodegradable.
- b Foam inhibitors used in manufacturing processes must meet either i or ii below:
 - i No use is allowed of foam inhibitors that are classified as ecotoxic
 - ii 95 % by weight of the constituent substances that have a foam inhibiting or retarding effect must be either readily or ultimately biodegradable.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation including:

- Safety Data sheets for foam inhibitors to demonstrate compliance with b) i, if applicable
- Safety Data Sheets, test reports or information from the DID list (see below) to demonstrate biodegradability of any surfactants or foam inhibitors used
- relevant production and quality control information.

Compliance with the requirements in b) i may be demonstrated by providing data indicating that the foam inhibitor does not have any of the classifications (or combinations thereof) listed in Table 1 (Appendix A) for ecotoxins.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Testing Methods

The surfactant must either meet the requirement for “readily biodegradable” when determined using one of the five methods described in the OECD Guidelines for testing of chemicals, Test Guidelines 301A-301E or achieve a biodegradability of at least 80 % when tested by OECD method published in the OECD technical paper report of 11 June 1976. Alternatively, the foam inhibitor may meet the requirement for ultimate biodegradability in accordance with the OECD Test Guidelines 302A-302C.

If an equivalent method is to be used, Environmental Choice may require details of the method and its validation.

The 2014 DID list can be found at

http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_a_en.pdf or can be obtained on request from The Trust.

5.10.11 Radioactivity

Criteria

Interior lining products containing greater than 75% by mass of granites, pegmatites, brick, clinker, slag or other wastes from smelting, or ash from coal or peat, must comply with the following:

- i $CK/3000 + CRa/300 + CTh/200 < 1.0$
AND
- ii $CRa/100 < 1.0$

Where:

- CK = Concentration of Potassium-40 (Bq/Kg)
- CRa = Concentration of Radium-226 (Bq/Kg)
- CTh = Concentration of Thorium-232 (Bq/Kg)

Explanatory Notes

- 1 % Potassium is equivalent to 310 Bq/Kg of Potassium-40
- 1 ppm Uranium is equivalent to 12.3 Bq/Kg of Radium-226
- 1 ppm Thorium is equivalent to 4.0 Bq/Kg of Thorium-232

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported with documentation showing compliance with the above limits and including details of the test method used.

Test Method

The analysis should be performed by gamma spectrometry of crushed materials, gamma spectrometry using a portable gamma spectrometer, strong acid digest ICP-AAS or ICP-MS technique, or similar test method.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.11 Energy Management

Criteria

- a The licence applicant/holder and product manufacturer must have effective energy management policies and procedures and/or an energy management programme.
NOTE: if the manufacturers are ECNZ licence holders, they are deemed to comply.
- b The licence holder and manufacturer must report annually to ECNZ on energy management, including:
- total energy use
 - breakdown of total energy use to types of energy used
 - energy use related to production
 - initiatives taken to reduce energy use and improve energy efficiency
 - initiatives taken to calculate and reduce CO2 emissions associated with energy use
 - initiatives or requirements for suppliers or contract manufacturers.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- describes the energy management policies, procedures and programmes
- includes annual reports on energy use and management.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.12 Waste Management

Criteria

- a The licence applicant/holder and product manufacturer must have effective waste management policies and procedures and/or a waste management programme covering manufacturing operations.
- NOTE:** if the manufacturers are ECNZ licence holders, they are deemed to comply.
- b Licence holders and product manufacturers must report annually to ECNZ on waste management, including:
- quantities and types of waste recovered for reuse internally and externally
 - quantities and types of waste recycled internally and externally
 - quantities and types of waste disposed of to landfill
 - quantities and types of waste burned internally for energy recovery
 - waste generation related to production
 - initiatives taken to reduce waste generation and improve recovery/recycling of waste
 - initiatives or requirements for suppliers or contract manufacturers.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- describes the waste management policies, procedures and programmes
- includes annual reports to ECNZ on waste generation, minimisation and management.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.13 Packaging Requirements

Criteria

- a All plastic packaging must be made of plastics that are able to be recycled in New Zealand (or the country to which the product is exported and sold).
- b Packaging shall not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent recycling (i.e. sleeves, metallic labels).
- c Information shall be provided to ECNZ at application and thereafter reported annually on PVC and/or phthalates used in the packaging. This should include information from production records and/or suppliers on:
 - i the percentages by weight of recycled and virgin PVC
 - ii the particular production processes (membrane cells, non-asbestos diaphragms, modified diaphragms, graphite anodes, mercury cells, closed-lid production etc) used to produce chlorine and VCM for the PVC being used in the packaging for ECNZ-licensed products (including the locations of the production)
 - iii information, where available, on waste disposal, wastewater treatment and emissions to air (occupational exposure, emissions from the factory and emissions from the final PVC resin)
 - iv information on any Environmental Management System (EMS) for the production process, including requirements for waste, water, air and product-related requirements
 - v the types of stabilisers used
 - vi the types and amounts of any phthalate plasticisers present in recycled content of the PVC (if that information is available) and/or added when manufacturing PVC
 - vii research and initiatives implemented on substitutes for phthalates identified as of concern by regulators
 - viii any product stewardship arrangements for the packaging.

NOTE: Regulators have identified the following phthalates to be of concern – dibutyl phthalate (DBP), diisobutyl phthalate (DIBP), butyl benzyl phthalate (BBP), di-n-pentyl phthalate (DnPP), di(2-ethylhexyl) phthalate (DEHP), di-n-octyl phthalate (DnOP), diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP). These phthalates may be prohibited by the Hazardous Substances criteria in Clause 5.10.1.
- d Primary cardboard packaging shall consist of any combination of:
 - recycled content.
AND/OR
 - waste wood or virgin fibre from native forests that are certified under the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) as sustainably managed (or equivalent certification)
AND/OR
 - waste wood or virgin fibre from plantations which have been legally harvested.

NOTE: Please see Appendix C for details of acceptable certifications for certified sustainable forest management and legally harvested wood.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported with the following documentation and evidence.

- Conformance with criterion (a) shall be supported by documentation verifying the packaging is recyclable.
- Conformance with criteria (b) shall be demonstrated by providing samples of all plastic containers and components.
- Conformance with criteria (c) shall be demonstrated by providing initial and ongoing annual reports to ECNZ on PVC and plasticisers used. This should include as much of the available information requested in (c) as possible.
- Conformance with criterion (d) shall be supported by documentation from the packaging manufacturer verifying the source of all fibre in the cardboard packaging.

5.14 Consumer Information

Criteria

The product must be accompanied by instructions on:

- the recommended base/ substrate and any unsuitable substrates/conditions
- preparation of the base/substrate (if required)
- the recommended adhesive to affix the product to the base/substrate
- installation instructions
- cleaning, maintenance and repair
- appropriate reuse, recycling or disposal.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by copies of the relevant information and an explanation of how the information is available to suppliers, installers and consumers.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

5.15 Product Stewardship

Criteria

- a The interior lining product must not be impregnated, labelled, coated or otherwise treated in a manner which would prevent recycling in New Zealand or in the country where the product is used.
- b Licence holders must report annually to Environmental Choice New Zealand on product stewardship, including:
 - availability, feasibility, and involvement in product take-back schemes, including for products which are currently installed
 - initiatives taken to promote or implement take-back schemes
 - initiatives taken to make products more recyclable
 - initiatives or requirements for suppliers or contract manufacturers.

Verification Required

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- includes information which demonstrates that the product can be recycled
- describes the product stewardship initiatives, procedures and programmes
- includes annual reports on product stewardship initiatives.

6 Product Characteristics

6.1 Fitness for purpose

Criteria

The product must be fit for its intended use and conform, as appropriate, to relevant product performance standards.

Verification Required

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation:

- identifying the applicable standards, specifications and or consumer/customer requirements
- demonstrating how compliance is monitored and maintained (including quality control and assurance procedures)
- records of customer feedback and complaints.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

7 Requirements and Notes for Licence Holders

Monitoring Compliance

Prior to granting a licence, ECNZ will prepare a plan for monitoring ongoing compliance with these requirements. This plan will reflect the number and type of products covered by the licence and the level of sampling appropriate to provide confidence in ongoing compliance with criteria. This plan will be discussed with the licence applicant and when agreed will be a condition of the licence.

As part of the plan, ECNZ will require access to relevant quality control and production records and the right of access to production facilities. Relevant records may include formal quality management or environmental management system documentation (for example, ISO 9001 or ISO 14001 or similar).

The monitoring plan will require the licence holder to advise ECNZ immediately of any non-compliance with any requirements of this specification which may occur during the term of the licence. If a non-compliance occurs, the licence may be suspended or terminated as stipulated in the Licence Conditions. The licensee may appeal any such suspension.

ECNZ will maintain the confidentiality of identified confidential information provided and accessed during verification and monitoring of licences.

Using the ECNZ Label

The Label may appear on the wholesale and retail packaging for the product, provided that the product meets the requirements in this specification and in the Licence Conditions.

Wherever it appears, the Label must be accompanied by the words “Interior Lining Product” and by the Licence Number e.g. ‘licence No1234’.

The Label must be reproduced in accordance with the ECNZ programmes keyline art for reproduction of the Label and the Licence Conditions.

Any advertising must conform to the relevant requirements in this specification, in the Licence Conditions and in the keyline art.

Failure to meet these requirements for using the ECNZ Label and advertising could result in the Licence being withdrawn.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Appendix A

• **Table 1 – Hazardous Substance Classifications**

European Risk Phrases	New Zealand HSNO Classes	Globally Harmonised System
Toxins		
R23 toxic by inhalation	6.1B or 6.1C	Acute Tox. 2 and 3, H330, H331
R24 toxic in contact with skin	6.1B	Acute Tox. 3, H311
R25 toxic if swallowed	6.1B	Acute Tox. 3, H301
R26 very toxic by inhalation	6.1A	Acute Tox. 2 and 3, H330
R27 very toxic in contact with skin	6.1A	Acute Tox. 1, H310
R28 very toxic if swallowed	6.1A	Acute Tox. 2, H300
Ecotoxins		
R50 very toxic to aquatic organisms	9.1A	Aquatic Acute 1, H400
R51 toxic to aquatic organisms	9.1D or 9.1B	
R52 harmful to aquatic organisms	9.1D or 9.1C	
R53 may cause long-term adverse effects in the aquatic environment	9.1D	Aquatic Acute 4, H413
R50/53 very toxic to aquatic life with long lasting effects	9.1A	H410
R51/53 toxic to aquatic life with long lasting effects	9.1B	H411
R52/53 toxic to aquatic life with long lasting effects	9.1C	H412
Respiratory Sensitisers		
R42 May cause sensitisation by inhalation	6.5A	Resp. Sens. 1, H334
Contact Sensitizers		
R38 Irritating to skin	6.3A or 6.3B	Skin Irrit. 2, H315
R43 May cause sensitisation by skin contact	6.5B	Skin Sens. 1, H317
Carcinogens, Mutagens and Reproductive Toxins		
R40 limited evidence of a carcinogenic effect	6.7B	Carc. 2, H351
R45 may cause cancer	6.7A	Carc. 1A and 1B, H350
R46 may cause heritable genetic damage	6.6A	Muta. 1B, H340
R49 may cause cancer by inhalation	6.7A	Carc. 1A and 1B, H350
R60 may impair fertility	6.8A	Repr. 1A and 1B, H360
R61 may cause harm to the unborn child	6.8A	Repr. 1A and 1B, H360
R62 possible risk of impaired fertility	6.8B	Repr 2, H361
R63 possible risk of harm to the unborn child	6.8B	Repr 2, H361d
R68 possible risk of irreversible effects	6.6B	Muta. 2, H341

NOTE: There are different classification systems for hazardous substances that are used internationally. As the ECNZ specifications need to consider products that are manufactured in New Zealand and overseas, it is necessary to consider the equivalence of hazardous property classification systems in different jurisdictions. The table above shows the (broadly) equivalent European Risk Phrases, New Zealand HSNO Classifications and the United Nations' Globally Harmonised System of Classification and Labelling of Chemicals (GHS) classifications. The EU has implemented the GHS into EU law, replacing the Risk Phrases, and all “substances” (single compounds) have now been transferred to the new classification system. Mixtures must be classified under the GHS by 31 May 2015.

It is important to note that the Risk Phrases, HSNO Classifications and GHS are classification frameworks and the particular classifications applied to a substance may vary between jurisdictions (for example Europe, the United States and New Zealand each have their own agency with responsibility for assessing and classifying hazardous substances). Differences between classifications can be due to the weight placed on particular toxicity studies (i.e. a jurisdiction may consider that a study is flawed) or in the event that new information becomes available (i.e. differences in the timing of the classification or re-classification of a substance). Where there is a discrepancy between the classifications applied to specific substances in the different schemes, The Trust's appointed technical advisors will review supporting information regarding the classifications on a case-by-case basis to determine and recommend to The Trust how these discrepancies should be managed within the life cycle context of the relevant product category. Where appropriate, technical clarifications and changes, with accompanying explanation, will be included in the relevant specification.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Appendix B

• Physical and Environmental Properties of Major Blowing Agents

Ref: UNEP (2007): 2006 Report of the Flexible and Rigid Foams Technical Options Committee – 2006 Assessment. Nairobi: UNEP/Ozone-Secretariat. Available online: http://ozone.unep.org/teap/Reports/FTOC/ftoc_assessment_report06.pdf [Accessed May 2010]

	CFC-11	CFC-12	HCFC-22	HCFC-142b	HCFC-141b	HFC-134a	HFC-152a	HFC-245fa	HFC-365mfc	HFC-227ea
Chemical Formula	CFCl ₃	CCl ₂ F ₂	CHClF ₂	CH ₃ CClF ₂	CCl ₂ FCH ₃	CH ₂ FCF ₃	CHF ₂ CH ₃	CF ₃ CH ₂ CHF ₂	CF ₃ CH ₂ CF ₂ CH ₃	CF ₃ CHFCF ₃
Molecular Weight	137	121	86	100	117	102	66	134	148	170
Boiling Point (°C)	24	-30	-41	-10	32	-27	-25	15.3	10.2	-16.5
Gas Conductivity (mW/m ² K at 10 °C)	7.4	10.5	9.9	8.4	8.8	12.4	14.3"	12.5*	10.6*	11.6
Flammable limits in air (vol. %)	none	none	none	6.7-14.9	7.3-16.0	none	3.9-16.9	none	3.8-13.3	none
TVL or OEL (ppm) (USA)	1000	1000	1000	1000	500	1000	1000	n/a	n/a	1000
GWP (100 yr.)**	4000	8500	1700	2000	630	1300	140	820	840	2900
ODP	1.0	1.0	0.055	0.065	0.11	0	0	0	0	0

Table 2: Fluorinated Blowing Agents

	Methylene Chloride	Trans-1,2-dichloroethylene	Isopentane	Cyclopentane	n-pentane	Carbon Dioxide	Isobutane	n-butane	Methyl Formate (Ecomate®)
Chemical Formula	CH ₂ Cl ₂	C ₂ H ₂ Cl ₂	CH ₃ CH(CH ₃)CH ₂ CH ₃	(CH ₂) ₅	CH ₃ (CH ₂) ₃ CH ₃	CO ₂	C ₄ H ₁₀	C ₄ H ₁₀	CH ₃ (HCOO)
Molecular Weight	84.9	97	72.1	70.1	72.1	44	58.1	58.1	60
Boiling Point (°C)	40	48	28	49.3	36	-139	-11.7	0.5	31.5
Gas Conductivity (mW/m ² K at 10 °C)	n/a	n/a	13.0	11.0	14.0	14.5	15.9	13.6**	10.7"
Flammable limits in air (vol. %)	none	6.7-18	1.4-7.6	1.4-8.0	1.4-8.0	none	1.8-8.4	1.8-8.5	5.0-23.0
TVL or OEL (ppm) (USA)	35-100	200	1000	600	610	n/a	800	800	100
GWP (100 yr.)**	n/a	<25	<25	<25	<25	1	<25	<25	<25
ODP	0	0	0	0	0	0	0	0	0

Table 3: Non-fluorinated Blowing Agents

- " Measured at 25 °C
- * Measured at 24 °C
- ** IPCC-Report 1996
- *** Measured at 0 °C

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

Appendix C

Explanatory Notes for types of claims that can be used to demonstrate compliance with the criteria set in 5.2.1-5.2.4 and 5.13 d).

Part A:

Sustainable Forest Management (SFM):

The FSC and PEFC certification schemes each have a range of certificates/labels. Some of these allow for wood/fibre from certified sustainably managed plantations or forests to be mixed with non-certified wood/fibre. Under FSC Mixed Credit or PEFC Volume Credit methods, wood/fibre or products associated with the certification claim or label may or may not actually contain wood/fibre from the certified sustainably managed source. Certifications accepted by The Trust are those which will ensure that wood from sustainably managed forests, as required in criteria 5.2.1 and 5.2.2, will be actually present in the final ECNZ-licensed product. These are set out below.

Types of FSC claims which can be used to demonstrate compliance with the above requirements:

- FSC 100 %
- FSC Mix X % - provided the % meets the requirements
- FSC Mix Credit – only if the manufacturer can demonstrate that actual FSC material is used for the ECNZ products.
- FSC Recycled provided it contains 100% recycled material
- FSC Controlled Wood cannot be used to meet the FSC certified requirements

Types of PEFC claims which can be used to demonstrate compliance with the above requirements:

- PEFC Certified – Physical Separation method.
- X % PEFC Certified – Average Percentage method, provided the % meets the requirements
- X % PEFC Certified – Volume Credit method – only if the manufacturer can demonstrate that actual PEFC certified material is used for the ECNZ products.

PEFC Controlled Sources material cannot be used to meet the PEFC certified requirements

The following certification schemes will be accepted as equivalent to FSC or PEFC certification of SFM:

- Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management certified (PHPL) (<http://liu.dephut.go.id/>).
- Sustainable Forest Management Plans, supported with Annual Logging Plans that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993). These Plans must be prepared in accordance with Standards and Guidelines for the Sustainable Management of Indigenous Forests and guidance for preparing Sustainable Management Plans and Annual Logging Plans. Wood sourced from New Zealand indigenous forests covered by approved plans will be accepted as equivalent to FSC sustainably managed forest certification provided compliance with the approved plans is demonstrated through independent on-site assessment.

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.

For any other schemes to be considered, the applicant will be required to provide detailed information that demonstrates the certification scheme is credible and equivalent. For examples of the type of information required, refer to the UK Central Point of Expertise on Timber Procurement (CPET) assessments of certification schemes available on www.CPET.org.uk.

Part B:

Legal harvesting:

The following certification schemes will be accepted as sources of information to demonstrate legal harvesting, where certificates and chain of custody evidence is available for virgin fibre sources:

- Forest Stewardship Council – “Certified” or “Controlled Wood” (www.fsc.org).
- Programme for the Endorsement of Forest Certification (PEFC) - “Certified” or “Controlled Sources” (www.pefc.org).
- SGS Timber Legality & Traceability Verifications service (TLTV) Verification of Legal Compliance certification (TVTL-VLC) (<http://www.sgs.com/en/Public-Sector/Monitoring-Services/Timber-Traceability-and-Legality.aspx>).
- Rainforest Alliance SmartWood Verification of Legal Compliance (VLC) certification (<http://www.rainforest-alliance.org/forestry/verification/legal>).
- System Verifikasi Legalitas Kayu - Timber Legality Verification System (SVLK) certified, or SVLK/PHPL (Pengelolaan Hutan Produksi Lestari – Sustainable Production Forest Management) certified (<http://liu.dephut.go.id/>).
- Sustainable Forest Management Plans (supported with Annual Logging Plans) that have been prepared and approved under the New Zealand Forests Act 1949 (amended in 1993).

These criteria have been prepared specifically for the New Zealand Ecolabelling Trust as part of the Environmental Choice New Zealand programme's life cycle approach and its principles and procedures for developing licence criteria for specific product categories. The New Zealand Ecolabelling Trust accepts no responsibility for any use by any party of information in the document in any other context or for any other purpose.