



The New Zealand Ecolabelling Trust

Proposed revised Licence Criteria for
Carpets and Rugs

EC-63-22

Notification Draft

Open for comment until 22 July 2022

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Specification change history

Minor clarifications, corrections or technical changes made since the specification was last reviewed and issued in [date]

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Table of contents

1	Introduction	5
2	Background	7
3	Interpretation	8
4	Category definition	10
5	Environmental criteria	12
5.1	Legal requirements 	12
5.2	Modern slavery and social accountability 	13
5.3	Materials	15
5.3.1	Wool	15
5.3.2	Product Information	18
5.3.3	Acrylic Fibres	18
5.3.4	Polyamide (nylon)	19
5.3.5	Polyester	19
5.3.6	Polypropylene	19
5.3.7	PVC	20
5.3.8	Natural Rubber	21
5.3.9	Latex, Synthetic Rubber and Bitumen	21
5.3.10	Cotton	22
5.4	Resource Use and Emissions Manufacturing	23
5.4.1	Environmental Management System	23
5.4.2	Fibre and Backing Materials Procurement	23
5.4.3	Total Recycled Content of Finished Product	24
5.5	Hazardous substances	25
5.5.1	General Hazardous Substances	25
5.6	Wool Yarn	28
5.6.1	COD level	28
5.6.2	Insect resistance treatment	29
5.6.3	Lubricant additions (Wool Pile Carpets)	30
5.7	Dyes and dye processes	31
5.7.1	Dyes	31
5.7.2	Dye Processes	33
5.7.3	Metal Complex Dyes	33
5.7.4	Water Use	34
5.6	Carpet Manufacturing	34
5.6.1	Backings	34
5.6.2	Dyeing Processes	35
5.6.3	Flame Retardants	36
5.8	Waste management 	36
5.9	Energy management and Embodied Carbon 	38
5.10	Water management 	39
5.11	Emissions to indoor air from the finished product	40
5.12	Product stewardship 	41
5.12.1	Recyclingability or composting of finished product	41
5.12.2	Take-back schemes	42

DRAFT

6	Product characteristics	43
6.1	Fitness for Purpose	43
6.2	Product Warranty	43
7	Requirements and notes for Licence Holders	45

Appendix A :	Composition table
Appendix B :	Treatments table
Appendix C :	Hazardous substances
Appendix D :	Physical and Environmental Properties of Major Blowing Agents Ozone Depleting Substances

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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 14024:2018 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 revised specification for Carpets and Rugs. The specification has been published to take account of substances and processes harmful to the environment, energy management, waste management, and end of life disposal of products and packaging.

This revised specification sets out the requirements that carpet and rug 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 revised 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, publicly available information, and information provided by current licensees.

Once finalised, 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.

ABOUT THIS PROPOSED REVISION:

There are currently two ECNZ carpet specifications: EC-04-11 Wool and Wool-rich Pile Carpets, and EC-33-14 Synthetic Carpets. The Trust is proposing to merge the two carpet specifications into one specification because there is significant overlap between criteria across the two specifications.

This proposed revision includes a consolidation of criteria from both specifications.

Other GEN member specifications reviewed included:

- ABNT Ecolabel *Textile floor coverings* (2013)
- Eco Mark Program Japan *Household Textile Products* (2019)
- EU Community Ecolabel *Textile Floor Coverings* (2013)
- GECA *Carpets* (2021)
- GECA *Floor Coverings* (2021)
- Green Mark *Carpets* (2019)
- Green Product Mark (TUV Rheinland) *Textiles, Shoes and Bags* (2019)
- Korea Eco-label *Indoor Floor Coverings* (2016)
- Nordic Swan *Floor Coverings* (2014)
- Blue Angel *Low-Emission Textile Floor Coverings* (2016)

A number of GEN-member eco-labels are considering including criteria on social issues in their eco-labelling specifications. GEN-members believe that environmentally preferable products should also be socially responsible. There are many social issues within the supply chain and product life cycle from raw material harvesting, processing to end user. Social issues of concern during manufacturing of a typical product include fair pay, child labour, modern slavery, workers' rights and employer's responsibilities, community impacts, training, education, and health and safety. The emphasising of social aspects within the specification aligns ECNZ with the global trend of merging both environmentally and socially acceptable practice when developing and producing products within the market. Criteria within the specification are marked with 🧑🏫 where they relate to a social issue, and with 🌍 where they relate to an environmental issue. Some criteria are marked with both a 🌍 and 🧑🏫 which denotes the criteria covers both an environmental and socially acceptable practice.

MAKING SUBMISSIONS:

The Trust invites comments from interested parties on this proposed revised specification. This proposed specification revision includes a number of these shaded text boxes. These include notes and some specific questions to assist readers to understand and provide comment on the requirements and proposed changes.

Where changes to the current requirements are proposed in this specification, they are shown as either ~~red-strikeout~~ (for text proposed to be deleted) or in red underlined (for new text).

This proposed 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 and information provided by current licensees.

The Trust is keen to receive comments about:

- any other information that may be relevant;
- how applicable and relevant the information and requirements included in the proposed revised specification are to differentiate environmentally preferable paper products in the New Zealand market; and
- how achievable and practical the requirements are, including the requirements for testing (including test methods) and verification.

2 Background

The ~~impact on the~~ environmental ~~impact~~ of ~~synthetic~~ carpet ~~and rug~~ products occurs throughout the ~~product~~ lifecycle from the raw materials through to manufacturing and disposal of the ~~synthetic carpet~~ product. ~~Each stage of the product's life cycle presents an opportunity to reduce environmental harm and increase environmental benefit.~~

~~Both natural and synthetic fibre manufacture requires water and energy intensive processes.~~

Processing of the materials used in ~~synthetic~~ carpet ~~and rugs~~ can involve using hazardous substances including ~~a wide range of~~, dyes, heavy metals ~~additives~~, degreasing and cleaning agents, ~~formaldehyde~~, solvents, adhesives, preservatives, biocides, and flame retardants. Some of these substances are carcinogenic, mutagenic, toxic, ecotoxic, or harmful to human reproductive systems. 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 ~~synthetic~~ carpet. These can have adverse effects on human health during use, ~~such as for example~~, carcinogenic emissions of volatile organic compounds (VOCs).

~~Another significant potential environmental impact associated with the manufacture of synthetic carpets, 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 flooring products result from sourcing and producing the raw materials (including the associated use of hazardous substances).~~ Ensuring ~~Encouraging features that ensure~~ products are durable and have a long life, will help to reduce the overall burden of these products on the environment. ~~Historically there has been limited options to avoid disposal of the carpet and rug products to landfill. Initiatives on product design for recyclability, product stewardship, waste reduction, 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 Ecolabelling of Textile Floor Coverings, Blue Angel (Germany), EU Eco label, EcoLogo (Canadian) and Australian programmes have criteria specifically for textile flooring products (carpets). Many of the criteria in the existing ECNZ Wool and Wool-rich Pile Carpets (EC-04-11), Textiles, Skins and Leather (EC-31-12) and Floor Coverings (EC-28-12) specifications have also been included in this specification, especially in relation to polymers, rubbers and dyes. 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 requirements of ~~this carpet and rug specification following product category requirements~~ will produce environmental benefits by:

- reducing hazardous substance use, discharges and emissions to the environment;
- reducing the exposure of people to hazardous substances;
- encouraging the effective and responsible use of resources and sustainable management of resources;
- minimising waste; and
- improving energy efficiency and conservation.

~~As information and technology change, product category requirements will be reviewed, updated and possibly amended.~~

3 Interpretation

 (Environmental Responsibility) means a criterion or sub-clause within the ECNZ specification which addresses an environmental concern.

 (Social Responsibility) means a criterion or sub-clause within the ECNZ specification which addresses a social concern.

ASTM: American Society for Testing and Materials

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.

Backing: Tufted carpets (and rugs) have backing systems or chemistry to keep tufts in place. Backing systems are made from a variety of materials. Backing systems generally comprise a primary backing and a chemical adhesive. Frequently a secondary backing is included. Commonly the yarn is secured into the primary backing by synthetic latex, and a secondary backing (or cushion) is attached with a bonding agent or adhesive to add stability to the carpet structure.

Woven carpets interlace face yarns and backing yarns into a complete product, eliminating the need for a secondary backing. A small amount of latex back coating is usually applied for bulk. Fabrics and yarns that make up the back of the carpet as opposed to the carpet pile or face. In tufted carpet:¹

- ~~— Primary backing — A woven or nonwoven fabric in which the yarn is inserted by the tufting needles.~~
- ~~— Secondary backing — Fabric laminated to the back of the carpet to increase dimensional stability.~~

Carpet tiles are carpet squares, often 500 mm x 500 mm or 18 inches by 18 inches (457 x 457 mm) each but also available in other sizes, with or without attached cushion backing. These products may also be referred to as modular carpet.

CFCs means Chlorofluorocarbons.

Chemical Oxygen Demand (COD) means the mass concentration of oxygen equivalent to the amount of dichromate consumed by dissolved and suspended matter when a water sample is treated with that oxidant under defined conditions.

¹Retrieved on 29/4/2022 and adapted from <https://carpet-rug.org/carpet-for-business/specifying-the-right-carpet/The-Carpet-and-Rug-institute-Definition>

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.

Environmental management system means a framework that helps an organisation achieve its environmental goals through consistent review, evaluation, and improvement of its environmental performance.

Fibre is a natural or artificial material with a very high aspect ratio. That is, lengths hundreds to thousands of times greater than their widths. Useful textile fibres have high tensile strengths, flexibility, and in the case of polymer (synthetic) yarns, resistance to heat, light, chemical, and abrasives. Any substance which can be made into yarn.

GECA means Good Environmental Choice Australia.

GEN means the Global Ecolabelling Network.

Greenhouse Gas (GHG) means a gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect (a process that occurs when energy from a planet's sun goes through its atmosphere and warms the planet's surface, but the atmosphere prevents the heat from returning directly to space, resulting in a warmer planet).

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, usually 100 years. 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.

HSNO means Hazardous Substances and New Organisms Act 1996.

HCFCs means hydrochlorofluorocarbons.

HFCs means hydrofluorocarbons.

ILO means International Labour Organisation, which is a United Nations agency whose mandate is to advance social and economic justice through setting international labour standards.

ISO means International Organisation for Standardisation.

Label means the Environmental Choice New Zealand Label.

Living Wage means a concept launched in NZ in 2012. It is the hourly wage a worker needs to pay for the necessities of life and participate as an active citizen in the community.

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- 111².

Recycling means turning waste materials into useful materials. Examples include vinyl backing into vinyl backing, or face fibre into automotive parts.

Recycled includes:

² Published by the German Technical Cooperation—Programme Proklima and commissioned by the German Federal Ministry for Economic Cooperation and Development

- Post-Consumer: Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of a product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
- Post-Industrial: Material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

Reusability is the ability of a product to be used again by another user or for another purpose. An example would be an extended life programme, where tiles are taken back, refurbished and then re-supplied to the same or another user to begin a 'second life'.

Safety Data Sheet (SDS) 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.

Solution dyed yarn is created when the colour pigments are added to the material before extrusion (which is the process used to create the yarn) as opposed to yarn dyed after it has been converted to yarn. Note that there are also numerous means of dyeing face fibre prior to tufting or dyeing carpet after it has been tufted including beck, injection dyeing, topical dyeing, print dyeing or continuous dyeing.

Total recycled content is a combination of post-consumer content and post-industrial content. That is the amount of pre- and post-consumer recovered material introduced as a feed stock in a material production process, usually expressed as a percentage by total weight.

Tufted / Tufting Is a process for attaching yarn to primary backing. Several hundred needles stitch hundreds of rows of pile yarn tufts through a backing fabric called the primary backing. Other methods include weaving, and fusion bonding.

Volatile organic compound (VOCs) are any organic compound having at 293.15 K a vapour pressure of 0.01 kPa or more or having a corresponding volatility under the particular conditions of use.

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.

WNZ means Wools of New Zealand.

Notes & Questions

Term definitions are outlined in this section to ensure consistent understanding of key phrases. They include some standard terms used in other ECNZ specifications.

Q1. Do you have any suggested changes to the term definitions? If so, what and why?

4 Category definition

This category includes carpet and rug products with the following fibre types:

- Wool.
- Synthetic fibre comprising acrylic, polyamide (nylon), polyester (PET), polypropylene, PVC.
- Blends of the above fibre types.

4.1 — Wool and Wool-rich carpets

- ~~— Scoured coarse/ strong wool intended for use in carpets~~
- ~~— All carpet products where the pile is 100 % pure new wool as defined in WNZ Specification Sheet E4 and tested using test method WNZ 155 (or equivalent, for example under the Australian Carpet Classification Scheme)~~
- ~~— All carpet products where the pile, when tested using test method WNZ 155 (or equivalent), has not less than 80 % wool fibre content (with a tolerance in accordance with the requirements of clause 4 of the New Zealand Consumer Information Standards (Fibre Content Labelling) Regulations 2000), with the balance being polyamide, polyester or polypropylene fibres~~

4.2 — Synthetic carpets

- ~~— Polymer fibre carpets delivered to market as commercial modular tile carpets.~~
- ~~— Polymer fibre carpets delivered to market as broadloom residential and commercial carpets~~

At least 90 % of the face fibre by weight must comprise one or more of the materials covered in clause 5.3 of this specification. No other single material shall comprise more than 5 % weight of the face fibre used.

At least 80% by weight of the backing must comprise of one or more of the materials covered in clause 5.3 of this specification. In this context backing includes the primary and secondary backing materials and the stabilising adhesives; but excludes the fillers. ~~No other single material shall comprise more than 10 % by weight of the total product.~~

To be licensed to use the Label, the carpet or rug product must meet all of the environmental criteria set out in clause 5 and product characteristics set out in clause 6.

Notes and questions:

The Trust is proposing to include rugs in the category definition. The Trust is proposing to simplify the category definitions and remove reference to “wool-rich” carpets by removing the minimum percentage that was previously required in EC-04. Some carpet and rug products on the market have animal hair components (e.g. goat hair) or comprise plant-based ingredients such as corn. The Trust is keen for feedback on what new products (if any) could be added to the category definition.

Q2. Do you agree with the proposed new category definition including the fibre types? If not, please explain why not and what you suggest as an alternative, if any.

Q3. Are there any other products that you consider should be added to the category definition, such as other natural fibre types?

5 Environmental criteria

5.1 Legal requirements

Criteria

- a The licence applicant/holder must demonstrate how applicable environmental legal requirements are met, including that all necessary environmental consents and permits are in place.
- b Significant component manufacturing or processes involved in the production of a carpet or rug 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 components 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 risk of regulatory non-compliance; and
 - Includes appropriate requirements 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/licence holder. This statement shall be supported by current documentation:

- Identifying the applicable regulatory requirements including specific obligations arising from permits, regulations, and regulatory plan rules.
- Demonstrating how compliance is monitored and maintained.

Verification of continued compliance with legal requirements will form part of the Licence Supervision Plan.

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.
- information provided to customers and contractors regarding regulatory requirements.

- 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).

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.

Notes:

The criteria have been updated to reflect standard wording across all ECNZ specifications.

5.2 Modern slavery and social accountability 🧑🧑

Criteria

- a The applicant/licence holder and carpet and/or rug manufacturer must have a policy/ policies on human rights, diversity & inclusion, and anti-bullying. At a minimum, it should comprise:
- An explicit commitment to respect all internationally recognized human rights standards – understood, at a minimum, as the International Bill of Rights and the International Labour Organization (ILO) Declaration on the Fundamental Principles (see below) and Rights at Work;
 - Stipulations concerning the company's expectations of personnel, business partners and other relevant parties e.g. a code of conduct; and
 - Information on how the company will implement its commitment and monitor compliance with it.
- b Where a licence holder/applicant and carpet and/or rug manufacturer has found instances of modern slavery in their business operations and or supply chains in the past two years, there shall be evidence of corrective action.
- c In addition to the above, the licence holder/applicant and carpet and/or rug manufacturer shall consider:
- Providing information to confirm whether the requirements of Social Accountability International Standard, SA8000 have been considered.
 - Being a Living Wage employer (or equivalent).
 - Having a senior member of its organisation responsible for social and environmental sustainability.

Note: From ILO Declaration on the Fundamental Principles and Rights at Work, there are the following core labour standards:

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87).
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98).
- Forced Labour Convention, 1930 (No. 29).
- Abolition of Forced Labour Convention, 1957 (No. 105).
- Minimum Age Convention, 1973 (No. 138).
- Worst Forms of Child Labour Convention, 1999 (No. 182).
- Equal Remuneration Convention, 1951 (No. 100).
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111).

Verification required

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- Copies of the relevant policies, procedures and plans.
- Records demonstrating the plans are being effectively implemented (including monitoring results).

Notes and questions

Human rights are relevant to all businesses, regardless of size, sector or country operation, and may include:

- Social cultural and economic rights, such as the right to participate in cultural activities, the right to food, the right to clean drinking water and sanitation, and the right to education.
- Labour rights, such as the right to freedom of association and effective recognition of the right to collective bargaining, and freedom from forced labour, child labour and discrimination.
- Civil and political rights, such as the right to life and liberty, freedom of expression and equality before the law.

New Zealand joined the International Labour Organisation (ILO) in 1919 (as a founding member) and as a member of the ILO, New Zealand is required to report on its application of ILO Conventions.

In 1998 the ILO Declaration on Fundamental Principles and Rights at Work was adopted and highlights a set of core labour principles endorsed by the international community. The Declaration covers four main areas for the establishment of a social 'floor' in the world of work:

- freedom of association and the effective recognition of the right to collective bargaining;
- the elimination of all forms of forced or compulsory labour;
- the effective abolition of child labour; and
- the elimination of discrimination in respect of employment and occupation.

From the above core labour principles, ILO Conventions has identified core labour standards.

The Trust considers it now timely and appropriate for the licence applicant/holder and aluminium smelting plant operator to comply with the above core labour standards as human rights are the basic rights and freedoms to which all humans are entitled.

The Trust proposes to encourage the use of the SA8000 Standard and Certification System as it provides a framework for organizations of all types, in any industry, and in any country to conduct business in a way that is fair and decent for workers and to demonstrate their adherence to the highest social standards, and is freely available for download from Social Accountability International (SAI). Elements of the standard include: child labour, forced or compulsory labour, health and safety, freedom of association & right to collective bargaining, discrimination, disciplinary practices, working hours, remuneration, and management system³.

Q4. Do you agree with the proposal to require licence holders/applicants and carpet and/or rug manufacturer to have a policy on human rights, diversity & inclusion and anti-bullying and to have requirements for dealing with modern slavery and social accountability?

5.3 Materials

Recycled polymers are exempt from the requirements in 5.3.3 to 5.3.10.

5.3.1 Wool

5.3.1.1 Wool Scouring

Criteria

Wool must be scoured in a scour that meets the requirements set in the ECNZ specification EC-47-11 Wool Scouring Services.

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 as follows:

- a copy of the ECNZ certificate covering the wool scour; OR
- an assessment report showing compliance with the requirements of EC-47-11 Wool Scouring Services, completed by an independent assessor from the ECNZ register and appointed by ECNZ; AND
- production and quality control processes and records to demonstrate that the scoured wool to be licensed or finished carpet or rug product includes wool that was scoured in a scour meeting EC-47-11 requirements.

³ <https://sa-intl.org/programs/sa8000/>

5.3.1.2 Pesticides

Criteria

- a Licence applicant/holders must have and implement a fibre procurement programme for greasy wool with the objectives of purchasing wool from farmers:
- using pesticides with lower human toxicity and aquatic ecotoxicity;
 - using pesticides with higher efficacy (likely to be based on persistence and effectiveness over time on the animals and more targeted on problem pest species); and
 - implementing best practice in storing, handling, managing and using pesticides so as to avoid pesticide discharges to ground or water.
- b The procurement programme shall be supported:
- with records and information from the farmers on pesticides used and practices employed to apply and manage pesticides on their farms; and
 - a programme of pesticide residue testing on greasy wool that provides for:
 - at least two samples and test results initially for each farmer supplying wool; and
 - additional testing if there are changes to the pesticides or application practices employed by the farmer that may impact on pesticide residue levels on wool.

The pesticide residue testing programme may be implemented progressively over a period of no more than three years, beginning with the farmers supplying the greatest volumes of wool. At least 10% of wool purchased must be tested at the time of application for an ECNZ licence.

- c The licence applicant/holder shall report to ECNZ on application and thereafter annually on the procurement and testing programmes. ~~and provide information on these, on request, to the wool scourer.~~

Testing shall be carried out using IWTO Draft Test Method 59 *Method for the Determination of Chemical Residues on Greasy Wool* or an equivalent test method approved by ECNZ. Test results shall be reported for the following pesticides.

Substance	CAS no
Organochlorine Insecticides (OCs)	
γ-hexachlorocyclohexane (Lindane)	319-84-6
α-hexachlorocyclohexane	319-85-7
β-hexachlorocyclohexane	58-89-9
δ-hexachlorocyclohexane	319-86-8
aldrin	309-00-2
dieldrin	60-57-1
endrin	72-20-8
p,p'-DDT	50-29-3
p,p'-DDD	72-54-8

Organophosphorous Insecticides (OPs)	
Propetamphos	31218-83-4
Diazinon	333-41-5
Dichlofenthion	97-17-6
Fenclorphos	299-84-3
Chlorpyriphos	2921-88-2
Chlorfenvinphos	470-90-6
Ethion	563-12-2
Pirimiphos-Methyl	29232-93-7
Synthetic Pyrethroids (SPs)	
Cyhalothrin	68085-85-8
Cybermethrin	52315-07-8
Deltamethrin	52918-63-5
Fenvalerate	51630-58-1
Flumethrin	69770-45-2
Insect Growth Regulators (IGRs)	
Diflubenzuron	35367-38-5
Triflumuron	64628-44-0
Dicyclanil	112636-83-6
Cyromazine	66215-27-8

Verification Required

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

- details of the procurement and testing programmes for greasy wool; and
- reports on the implementation of the procurement and testing programmes, including sufficient detail to demonstrate that the requirements of clauses (a) and (b) have been met.

Notes and Questions:

The requirements for wool scouring and scoured wool have not been changed, including that wool must be scoured in a scour that meets the requirements of the specification EC-47-11 Wool Scouring Services. There are no current licence holders for wool scouring services under EC-47-11.

Q5: Do you think the criteria for wool scouring are still relevant? Please explain why or why not and what you suggest as an alternative, if any.

Q6: Is there an alternative test method that is relevant to replace IWTO Draft Test Method 59 *Method for the Determination of Chemical Residues on Greasy Wool*?

Q7: Are there any pesticides that you feel should be added to or removed from the testing requirements?

5.3.2 Product Information

Criteria

Licence applicants/holders and/or carpet **and rug** manufacturers must provide the following information:

- a The composition of the finished carpet **or rug**, including all material types used in the face fibres and backings, % by weight of the finished product, recycled content of materials used and % by weight of the finished product (see Table 1 in Appendix A);
- b A list of all chemicals and treatments added during and after manufacturing of the **synthetic** carpet (see Table 2 in Appendix B).

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:

- Completed tables from Appendix A and Appendix B.
- When claiming that the material is recycled, documentation will be required to demonstrate that the polymers are recycled and to describe management systems in place (with relevant quality control and production documentation) to ensure that the claimed percentages are consistently met.
- More information may be required to demonstrate the environmental attributes of the filler where fillers other than chalk/calcium carbonate are used.

Explanatory Notes

Licence holders must maintain and update this information and advise The Trust about any changes to this information.

Changes to information, in particular to products and suppliers, will require assessment before **the changed product can be verified as compliant.** ~~they can be confirmed on an The Trust licence.~~

5.3.3 Acrylic Fibres

Criteria

- a The residual acrylonitrile content in raw fibres leaving the fibre production plant shall be less than 1.5 mg/Kg.
- b The emissions to air of acrylonitrile (during polymerisation and up to the solution ready for spinning), expressed as an annual average, shall be less than 1 g/Kg of fibre produced.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:

- a test report showing compliance with (a) using the following test method: extraction with boiling water and quantification by capillary gas-liquid chromatography; and
- detailed documentation and/or test reports showing compliance with (b).

5.3.4 Polyamide (nylon)

Criteria

Emissions to air of N₂O during monomer production, expressed as an annual average, shall not exceed 10 g/kg polyamide 6 fibre produced and 50 g/kg polyamide 6,6 produced.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by a declaration on compliance from the supplier or information on the supplier's compliance.

5.3.5 Polyester

Criteria

- a The amount of antimony in the polyester fibres shall not exceed 260 ppm.
- b The emissions of VOCs during polymerisation and fibre production of polyester, measured at the process steps where they occur, including fugitive emissions as well, expressed as an annual average, shall not exceed 1.2 g/kg of produced polyester resin.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by declarations on compliance from the supplier of the polyester or information on the supplier's compliance.

5.3.6 Polypropylene

Criteria

Lead-based pigments shall not be used.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by a declaration from the supplier of the polypropylene.

5.3.7 ~~PVC~~

Criteria

~~Information shall be provided to The Trust at application and thereafter reported annually on PVC and/or phthalates used in the synthetic carpet or rug. 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 an ECNZ licensed synthetic carpets or rugs (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; and~~
- ~~viii. any product stewardship arrangements for the PVC.~~

Verification Required

~~Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by appropriate documentation including:~~

- ~~— product specifications;~~
- ~~— production methods;~~
- ~~— calculations and quality controls; and~~
- ~~— initial and ongoing annual reports to The Trust on PVC and plasticisers used.~~

Explanatory Notes

~~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 5.5.~~

Notes and Questions:

The Trust is proposing to remove virgin PVC from the materials license criteria. Virgin PVC manufacturer includes a number of contaminants of concern, including chlorine, EDC and VCM. Our research indicates that recycled PVC can be used in carpet manufacture, and that other products are available as an alternative to PVC in carpet and rug manufacture.

Q8: Is virgin PVC still widely used in carpet or rug manufacture? What alternatives are available?

Q9: Is there a specific use for virgin PVC in carpets or rugs that can't be substituted with other materials? Please provide details.

5.3.8 Natural Rubber

Criteria

The **synthetic** carpet **and/or rug** manufacturer must:

- a have a system to trace and verify the origin of any natural rubber;
- b maintain records of any certification of rubber material used in licensed products; and
- c have, implement and report on an ongoing programme to review options to include Forest Stewardship Council or equivalent certified rubber content in licensed products.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by documentation:

- recording the supplier, nature and geographical source of all rubber inputs to the synthetic carpet or rug;
- including, certificates or other evidence on forest management and certification; and
- including an initial and annual report to The Trust on the programme to review options to include Forest Stewardship Council or equivalent certified rubber content in licensed products.

5.3.9 Latex, Synthetic Rubber and Bitumen

Criteria

The **synthetic** carpet **or rug** manufacturer must have, implement and report on a procurement policy to avoid or minimise the use of hazardous additives in the production of rubber, latex, or bitumen based backing materials and stabilising adhesives (for example styrene and butadiene).

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by documentation:

- identifying the hazardous additives used in the latex, synthetic rubber or bitumen backing materials and stabilising adhesives;
- describing the procurement policy to avoid or decrease the hazardous additives added in the production of Latex, Synthetic Rubber or Bitumen;
- describing management systems in place with relevant quality control and production documentation to ensure that these requirements are consistently met; and
- including an initial and annual report to The Trust on the procurement programme and additives used.

Explanatory Notes

The use of some phthalates or additives may be prohibited by the Hazardous Substances criteria in clause 5.5 Hazardous Substances.

5.3.10 Cotton

Criteria

Cotton used in the construction of carpets or rugs shall be unbleached

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by documentation:

- Confirming that cotton used in the carpet or rug construction is unbleached.

Notes and Questions:

The types of materials included are the same as those in EC-04 and EC-33. No new materials have been added. The use of cotton in carpet was included in EC-04 but not in EC-33.

Q10: Do you think the materials criteria are still relevant? Please explain why or why not.

Q11: Are there any materials that you consider should be added to or removed from the criteria? Please give your reasons.

5.4 ~~Resource Use and Emissions~~ Manufacturing

5.4.1 Environmental Management System

Criteria

The carpet or rug manufacturer must have ISO14001 or equivalent certification and be able to demonstrate that it is:

- a committed to reducing use of water and energy; and
- b committed to reducing emissions to air and water, particularly greenhouse gases.

Verification Required

Conformance with this requirement shall be stated in writing, 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 ISO 14001 or equivalent certificate covering the carpet or rug manufacturer, and
- a copy of the environmental policy of the carpet or rug manufacturer demonstrating the required commitments.

5.4.2 ~~Fibre and Backing Materials~~ Procurement

Criteria

- a Face fibre and backing materials used in synthetic carpet or rug products shall be sourced only from manufacturing facilities which:
 - i are committed to reducing use of water and energy;
 - ii are committed to reducing emissions to air and water, particularly greenhouse gases; and
 - iii have active programmes to investigate and increase post-consumer recycled content in the materials they supply.
- b The carpet or rug manufacturer shall have and implement a procurement programme that:
 - i gives preference to suppliers who have environmental management systems that are ISO 14001 (or equivalent) certified;
 - ii informs suppliers of the licence applicant/holder's preference for certified environmental management systems; and
 - iii requests and pursues reporting information from the suppliers on their measures taken to increase recycled content and the origin of any post-consumer content and their programmes to reduce energy use, water use and emissions to air and water.
- c An annual report for b (iii) will be required to The Trust either prepared by the Licence holder or provided by the carpet or rug manufacturer or supplier.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:

- copies or extracts of supply contracts with suppliers of synthetic fibre and backing that include requirements for programmes to reduce water and energy use and reduce emissions and to report on these;
- information on facilities at which synthetic fibre and backing materials destined for an ECNZ-licensed carpet or rug is manufactured, the certification status of their environmental management systems and/or plans or intentions regarding formal management systems and certification;
- a copy of the carpet or rug manufacturers procurement programme covering point b; and
- an annual report to The Trust on the supplier(s) programmes, prepared by the licence holder, or provided by the supplier(s).

5.4.3 Total Recycled Content of Finished Product

Criteria

The synthetic carpet and/ or rug manufacturer must:

- Have and implement an on-going programme to review options to increase post-consumer recycled ~~carpet~~ content in licensed carpet or rug products.
- Provide an annual report to The Trust on the quantity of total recycled content by % of weight of the finished product, including:
 - ~~clearly indicating~~ the % recycled content in each of both the facing and backing of the carpet or rug product;
 - ~~the % of post-consumer and post-industrial recycled content; shall be reported on separately.;~~
 - the origin of the post-consumer content;
 - ~~The report shall include~~ information on the measures taken to increase post-consumer recycled content; and
 - ~~any barriers which are preventing recycled content from being increased further. and the origin of the post-consumer content.~~

Verification required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by documentation:

- demonstrating the recycled content;
- recording the supplier, nature and source of all recycled content;
- describing management systems in place with relevant quality control and production documentation to ensure that any claimed % of recycled content is consistently met; and
- that includes an initial and annual report to The Trust on the programme and measures taken to increase the post-consumer recycled content in the synthetic carpet or rug.

Notes and Questions:

The requirement for ISO14001 certification in EC-04 and EC-33 was specific to manufacturing facilities that produced synthetic fibre. The requirement for ISO 14001 certification now applies to all carpet and rug manufacturing facilities, including those that manufacture natural fibre products. was included in both EC-04 and EC-33, but there is currently no requirements for recycled content in EC-04.

Q12: Do you think the resource use criteria are relevant? Please explain why or why not.

Q13: Do you agree with the requirement that all carpet manufacturing facilities have ISO 14001 certification? Please explain why or why not.

Q14: Do you think there should be a minimum recycled content in carpet and rug products? Please explain why or why not and what any minimum recycled content should be.

5.5 Hazardous substances

5.5.1 ~~General Hazardous Substances~~

The following are exempt from clause 5.5:

- 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 carpet or rug 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 specifically identified in substance-specific criteria elsewhere in this specification.

Criteria

- a The carpet or rug product shall not be manufactured with materials or substances that are classified as, carcinogens, mutagens or reproductive/developmental toxins, as identified using any of the classifications (or combinations thereof) listed in the table in Appendix C fillers, dyes, adhesives, and any chemicals used during manufacturing.
- ~~The following are exempt from clause a:~~
- ~~i. formaldehyde;~~
 - ~~ii. 1,3 butadiene, N-nitrosamines, styrene used in the production of rubber; and~~
 - ~~iii. VCM and EDC in the production of PVC.~~
- b Raw materials or substances added to the carpet or rug product that are classified as ecotoxins (as identified using any of the classifications, or combinations thereof, listed in the table in Appendix C) must not comprise in total more than 2% by weight of the finished carpet or rug product.
- c Raw materials or substances added to the carpet or rug product that are classified as sensitizers or allergenic (as identified using any of the classifications listed in the table in Appendix C) must not comprise in total more than 0.1% by weight of the finished carpet or rug product.

- d Organotin compounds must not be used.
~~The following is exempt from clause c:~~
- ~~i. Organic tin catalysts used in the production of flexible polyurethane where 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 is correctly disposed of.~~
- e Blowing agents with a global warming potential (GWP) of more than 140, measured over a 100-year time frame must not be used.
- f Blowing agents must have an ozone depleting potential (ODP) of zero.
- g The following substances shall not be part of any preparations or formulations used to treat textile fibres:
- i. alkylphenoethoxylates (APEOs)
 - ii. linear alkylbenzene sulfonates (LAS)
 - iii. bis(hydrogenated tallow alkyl) dimethyl ammonium chloride (DTPMAC)
 - iv. distearyl dimethyl ammonium chloride (DSDMAC)
 - v. di(hardened tallow) dimethyl ammonium chloride (DHTDMAC)
 - vi. ethylene diamine tetra acetate (EDTA)
 - vii. diethylene triamine penta acetate (DTPA).
- h The following substances shall not be actively added or used during transportation or storage of products and semi-manufactured products.
- i. Antimony oxides;
 - ii. Inorganic ammonium phosphates (diammonium phosphates, ammonium polyphosphates etc.);
 - iii. boron compounds (boric acid, borates);
 - iv. Halogenated organic substances including (but not limited to) methylene chloride, binding agents, Chlorophenols (their salts and esters), PCB, Chlorinated/brominated paraffins, Polybrominated diphenyl ethers and other halogenated flame retardants.
 - v. Fluorochemical finishes;
 - vi. Sulphonated phenolic stainblockers.
- i Biocidal or biostatic products shall not be applied to products so as to be active during the use phase.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by documentation that includes:

- lists of materials and substances used in the manufacture of the **synthetic** carpet **or rug**;
- SDS for **all ingredients; substances, including information on hazardous substance classifications of the substance and its constituent ingredients**;
- calculations and other supporting documents demonstrating that the limits set for finished **synthetic** carpet **or rug** products are met;
~~includes records of disposal of hazardous waste from the use of organic tin if applicable~~
- identifies the blowing agents used and their ODPs and GWPs;

- ~~— information about the classification of substances where there is a discrepancy between the identified classification schemes~~
- relevant quality control and production documentation. ~~and~~
- ~~— information on production methods to confirm the banned finishing processes are not used.~~

Explanatory Notes

- These ~~general~~ requirements do not apply to substances that are specifically identified in substance-specific criteria elsewhere in this specification.
- Requirement (dg) applies only to chemicals used to treat textile fibres. Other chemicals, such as those for cleaning production equipment do not need to fulfil the requirement.
- ~~— 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 preparatory treatments and certain plastics.~~
- Compliance with the requirements in 5.5 may be demonstrated by providing data indicating that the substance does not have any of the classifications (or combinations thereof) listed in the table in Appendix C.

GWP and ODP for some ~~ozone depleting substances of common blowing agents~~ are provided in Appendix D. ~~The references in Appendix D include For determining~~ the ODP and GWP of ~~further~~ substances. ~~not included in Appendix D, 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, The Trust will require full details of the reference source or a copy of the document, if it is not readily and freely available.

Notes and Questions:

The formaldehyde exemption has been removed from the hazardous substances exemptions due to its HSNO classification as a carcinogen. Our research indicates formaldehyde is not widely used anymore. The PVC-related exemptions have been removed because the Trust is proposing to removed virgin PVC from the materials licence criteria. The Trust is also proposing to remove the exemptions for 1,3 butadiene, N-nitrosamines, styrene.

Organotin has been removed from the hazardous substances exemptions due to its toxicity and environmental persistence, and that alternative catalysts are available in the production of polyurethane.

Q15: Is formaldehyde still used in carpet manufacturing? What alternatives are available and used in the industry?

Q16: Do you agree with the proposed removal of the exemptions classified as carcinogens, mutagens or reproductive/developmental toxins? Why or why not?

Q17: Do you agree with the proposed removal of the exemption for organotin? Why or why not?

Q18: Do you think the hazardous substances criteria are still relevant? Please explain why or why not.

5.6 Wool Yarn

Yarn shall be sourced only from yarn manufacturing facilities which comply with the following requirements.

5.6.1 COD level

Criteria

- a The COD level in the dyehouse effluent shall not exceed 35 kg/tonne of fibre dyed.
- b The carpet or rug applicant/ licence holder shall have and implement an improvement programme focused on reducing COD levels in the dyehouse effluent and report annually to The Trust on its implementation.

Sampling and Testing Methods

Sampling shall consist of five daily samples (taken on five successive working days) each consisting of at least three samples per day taken at a minimum of one-hour intervals. All samples (minimum fifteen) shall be combined and duplicate analyses shall be performed on the resulting composite sample.

Sampling for COD analysis shall take place after the operation of any on-site wastewater treatment and at intervals not exceeding six months.

COD shall be determined on unfiltered samples in accordance with APHA 5220, or an equivalent test. If an equivalent test is used, The Trust may require details of the test method and its validation.

Verification Required

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- test reports from a laboratory competent to carry out the relevant test methods;
- calculations to demonstrate the limit is met; and
- information on relevant sample collection procedures and quality control documentation and implementation of the improvement programme for COD levels in effluent.

5.6.2 Insect resistance treatment

Criteria

- a Insect-resist agents shall not be applied during opening, carding or spinning operations.
- b If permethrin or bifenthrin insect resist agents are used, the levels of these agents in total factory effluent shall not exceed:
 - 5g permethrin/tonne of wool treated.
 - 0.25 g bifenthrin/tonne of wool treated.Total factory effluent includes effluent from the scour and effluent from the dye baths and other wet processes.
- c Any insect resist agent used, other than permethrin or bifenthrin must meet the requirements of clause 5.5 Hazardous Substances in this specification.
- d Any insect resist agent used, other than permethrin or bifenthrin, must be a Wools of New Zealand (WNZ) approved agent that has lower *Daphnia magna* toxicity equivalent than permethrin, based on the rate of the insecticide(s) discharged per tonne of wool treated, calculated in accordance with the following method.

For permethrin:

- AW (grams active in factory effluent / tonne of wool treated) must be less than 5 g/tonne of wool treated.
- LC₅₀ for *Daphnia magna* (96 hour) = 0.6 µg/L.

$$\text{Therefore AW/LC}_{50} \text{ (permethrin)} = 8.3 \frac{\text{grams active / tonne of wool treated}}{\mu\text{g active / Litre effluent}}$$

For an alternative insect resist agent:

- i. Calculate AW (grams active in factory effluent / tonne of wool treated) using the following formula:

$$\text{AW (insect resist agent)} = \frac{\text{AE} \times \text{E/W}}{1000}$$

Where:

- AE (µg/L) = Concentration of active in effluent from the factory.
- E/W (L/tonne) = Effluent discharged from the factory (L) / tonne of wool treated.

- ii. Calculate AW/LC₅₀ for the insect resist agent.
- iii. The AW/LC₅₀ for the insect resist agent must be less than or equal to 8.3.

Notes:

Where insect resist agents are used in both the scour and dye bath or other wet processes, the term "factory effluent" refers to the total, combined effluent from all the processes involving the use of insect-resist agents.

Verification Required

Conformance with these requirements shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by the following information:

- for (a), information on production processes and controls;
- for (b), test reports from a laboratory competent to carry out the relevant test methods, production records and calculations and information on relevant sample collection procedures. Samples shall be taken at intervals not exceeding six months;
- for (c), copies of MSDS and/or other technical information on the insect resist agent being used, sufficient to demonstrate it does not have any of the identified classifications; and
- for (d), information confirming WNZ approval, the calculations required and source information for the value of LC50 *Daphnia magna* (96 hour).

5.6.3 ~~Lubricant additions (Wool Pile Carpets)~~

~~Criteria~~

- a ~~Spinning lubricants must meet the requirements in clause 5.4(a) Hazardous Substances of this specification.~~
- b ~~Spinning lubricant additions for yarn destined for a wool pile carpet shall not exceed 3% of the weight of wool.~~

~~Verification Required~~

~~Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by appropriate documentation of production methods and formulations, including:~~

- ~~— lists and MSDS for spinning lubricants used; and~~
- ~~— procedures for and records of lubricant additions.~~

Notes and Questions:

The Trust is proposing to delete this section (which was previously 5.5.3 of EC-04), because the proposed hazardous substances section already addresses the requirements. Spinning lubricant quantities required for wool spinning are likely to be optimised by the manufacturer to limit lubricant cost whilst ensuring efficient spinning.

Q19: Do you agree with the proposed changes to the lubricant additions for wool pile carpet or rug? Please explain why or why not.

5.7 Dyes and dye processes

5.7.1 Dyes

Criteria

- a Dyes (including metal complex dyes) and pigments containing lead (Pb), cadmium (Cd), mercury (Hg) or chromium (chromium total) as ingredients of the dyeing component must not be used to dye the materials.
- i The limit value for the total heavy metal content (including metal complex dyes) of a finished carpet or rug is 100 mg/kg.

~~The exception to clause a is for wool carpets or rugs, where the dye recipe shall not contain more than 250 mg of chromium per kg of wool dyed;~~

- b Azo dyes shall not be used that may cleave to any one of the following aromatic amines:

Name(s)	CAS No.
Benzidine	92-87-5
2-Naphthylamine	91-59-8
5-Nitro-o-toluidine/2 amino-4 nitrotoluene	99-55-8
4-Methoxy-m-phenylenediamine/2,4 diaminoanisole	615-05-4
3,3.-Dichlorobenzidine	91-94-1
3,3.-Dimethylbenzidine	119-93-7
6-Methoxy-m-toluidine/p-cresidine	120-71-8
4,4.-Oxydianiline	101-80-4
o-Toluidine	95-53-4
2,4,5-Trimethylaniline	137-17-7
4-Aminoazobenzene	60-09-3
2,4-Xylidine	95-68-1
4-Chloro-o-toluidine	95-69-2
o-Amino azotoluene	97-56-3
p-Chloroaniline	106-47-8
4,4.-Methylenedianiline/4,4 diaminodiphenylmethane	101-77-9
3,3.-Dimethoxybenzidine	119-90-4
4,4.-Methylenedi-o-toluidine/3,3-dimethyl-4,4-diaminodiphenylmethane	838-88-0
4,4.-Methylenebis (2-chloroaniline)	101-14-4
4,4.-Thiodianiline	139-65-1
4-Methyl-m-phenylenediamine/2,4 diaminotoluene	95-80-7
O-anisidine	90-04-0

Name(s)	CAS No.
2,6-Xylidine	87-62-7
4-Aminobiphenyl	92-67-1

Source: specified in the [19th Amendment of Council Directive 76/769/EEC restrictions on the marketing and use of azo colourants according to the European legislation following the Directive 2002/61/EC fifth Addendum to the German ordinance on consumer goods: German ban of use of certain azo compounds in some consumer goods](#), ETAD information notice no. 6, [Revised February 2008 http://www.etad.com](#) [Ecological and Toxicological Association of Dyes and Organics, November 1995](#)

c The following dyes that are carcinogenic, mutagenic or toxic to reproduction shall not be used:

- C.I. Basic Red 9
- C.I. Disperse Blue 1
- C.I. Acid Red 26
- C.I. Basic Violet 14
- C.I. Disperse Orange 11
- C.I. Direct Black 38
- C.I. Direct Blue 6
- C.I. Direct Red 28
- C.I. Disperse Yellow 3

d No use is allowed of dye substances or dye preparations containing more than 0.1% by weight of substances that are classified as carcinogens, mutagens or toxic to reproduction as identified using any of the classifications (or combinations thereof) listed in the table in Error! Reference source not found..

e The following potentially sensitising dyes shall not be used:

Name (s)	CI No.
C.I. Disperse Blue 3	C.I. 61 505
C.I. Disperse Blue 7	C.I. 62 500
C.I. Disperse Blue 26	C.I. 63 305
C.I. Disperse Blue 35	
C.I. Disperse Blue 102	
C.I. Disperse Blue 106	
C.I. Disperse Blue 124	
C.I. Disperse Brown 1	
C.I. Disperse Orange 1	C.I. 11 080
C.I. Disperse Orange 3	C.I. 11 005
C.I. Disperse Orange 37	
C.I. Disperse Orange 76 (previously designated Orange 37)	
C.I. Disperse Red 1	C.I. 11 110
C.I. Disperse Red 11	C.I. 62 015
C.I. Disperse Red 17	C.I. 11 210
C.I. Disperse Yellow 1	C.I. 10 345
C.I. Disperse Yellow 9	C.I. 10 375
C.I. Disperse Yellow 39	
C.I. Disperse Yellow 49	

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:

- information on dye recipes demonstrating the heavy metal limit is met; and
- Supplier declarations and/or SDS (safety data sheets) or other information to demonstrate the risks, if any, assigned to dyes used.

Notes and Questions:

Clause 5.5.4b) of EC-04 previously allowed up to 250mg of chromium per kg of wool dyed. The Trust is proposing to ban use of any chromium in the wool dyed.

The Trust is proposing to delete the subsection on water use (which was previously 5.5.4 of EC-33), because the Trust is proposing a new section to address water use for both licence holder and carpet or rug manufacture that will encompass water use during dyeing processes.

Q20: Do you agree that chromium in all dyes should be banned? Please explain why or why not.

5.7.2 Dye Processes

Criteria

Dyeing using after-chroming/chrome mordant techniques shall not be used.

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:

- ~~information on~~ Copies of dye formulations or recipes demonstrating ~~the that~~ chromium is not used. limit is met;
- ~~manufacturing process information and specification and performance criteria for relevant technologies utilised.~~

5.7.3 Metal Complex Dyes

Criteria

Only metal complex dyes based on copper or nickel can be used provided:

- a Where these metal complex dyes are part of the dye recipe, less than 7% of each of those metal complex dyes applied (input to the process) shall be discharged to wastewater treatment (whether on-site or off-site).
- b The emissions to water after treatment shall not exceed the value in the following table:

Substance	Limit Value
Cu (fibre, yarn or fabric)	75 mg/kg
Ni	75 mg/kg

Verification Required

Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by test reports using the following (or equivalent) test methods: ISO 8288 for Cu and Ni. If an alternative test method is proposed, the applicant will need to provide technical supporting information from a competent laboratory that the alternative test method is equivalent and appropriate to use to test and report against the limits set in the criteria.

5.7.4 ~~Water Use~~

Criteria

- ~~a — The Licence applicant/holder must ensure formal processes are in place as part of certified environmental management systems to minimise energy consumption and also water use in dyeing processes.~~
- ~~b — Formal processes must include monitoring and regular checks of water input and wastewater output volumes. Any remedial actions identified as a result of the monitoring processes should be implemented and closed out.~~

Verification Required

~~Conformance with this requirement shall be stated in writing, signed by the Chief Executive Officer or other authorised representative of the applicant company/Licence holder. This statement shall be supported by:~~

- ~~— manufacturing process information and specification and performance criteria for relevant technologies utilised;~~
- ~~— details of water recycling initiatives during dyeing processes.~~

Notes and Questions:

The Trust is proposing to delete the subsection on water use (which was previously 5.5.4 of EC-33), because the Trust is proposing a new section to address water management for both licence holder and carpet or rug manufacture that will encompass water use during dyeing processes.

Q21: Do you agree with the proposed changes to the lubricant additions for wool pile carpets or rugs? Please explain why or why not.

~~5.6 — Carpet Manufacturing~~

~~5.6.1 — Backings~~

Criteria

Cotton:

- ~~a Cotton used in the construction of carpets shall be unbleached.~~

Synthetic Backings:

- b ~~The carpet licence applicant/holder shall have and implement a synthetic backing procurement programme that gives preference to suppliers that~~
- ~~— have or are working towards certification of their environmental management systems to ISO 14001; and~~
 - ~~— have active programmes to investigate and increase recycled content in the backings they supply.~~
- c ~~As part of the procurement programme, the licence applicant/holder shall:~~
- ~~— inform suppliers of the licence applicant/holder's preference for suppliers that meets the requirements in (b); and~~
 - ~~— request and pursue information on the suppliers' ability to meet those requirements.~~
- d ~~Information shall be provided to ECNZ at application and thereafter reported annually on PVC and/or phthalates used in the backing. This should include information from production records and/or suppliers on:~~
- ~~— the percentages by weight of recycled and virgin PVC~~
 - ~~— the particular production processes used to produce chlorine and VCM for the PVC being used in an ECNZ licensed carpet (including the locations of the production and, where available, information on water & energy use, waste and emissions);~~
 - ~~— the types and amounts of any phthalate plasticisers present in recycled content of the backing (if that information is available) and/or added when manufacturing the backing; and~~
 - ~~— research and initiatives implemented on substitutes for phthalates identified as of concern by regulators.~~

~~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).~~

~~Verification Required~~

~~Conformance with these requirements shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:~~

- ~~— information about the facilities at which synthetic backings are manufactured and about production methods and materials used in the backings;~~
- ~~— implementation of the procurement programme for synthetic backings; and~~
- ~~— initial and ongoing annual reports to ECNZ on PVC and plasticisers used.~~

~~5.6.2 Dyeing Processes~~

~~Criteria~~

~~If the carpet is dyed in piece or continuous form, the requirements of clause 5.5 above shall be met, with the exception of sub-clause 5.5.3.~~

~~Verification Required~~

~~Conformance with these requirements shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be~~

~~supported by appropriate documentation of production methods, calculations and quality controls, as outlined in clause 5.5.~~

~~5.6.3 Flame Retardants~~

~~Criteria~~

- ~~a No use is allowed of flame retardants that are classified as carcinogens, mutagens, toxic to reproduction or ecotoxic as identified using any of the classifications (or combinations thereof) listed in the table in Appendix A.~~
- ~~b Halogenated flame retardants shall not be actively added to the wool or wool-rich carpet.~~

~~Verification Required~~

~~Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:~~

- ~~— information identifying any flame retardants used and describing production process controls on the use of the flame retardants;~~
- ~~— MSDS or other technical information demonstrating that flame retardants that are used meet the requirements.~~

Notes and Questions:

The Trust is proposing to delete this Manufacturing section (which was previously 5.6 of EC-04), because the criteria are already addressed elsewhere in the revised Specification. Flame retardants are already addressed in 5.5.1 h) vi).

5.8 Waste management

Criteria

- a The carpet and/or rug manufacturer and licence applicant/holder must have effective waste management policies and procedures and/or a waste management programme.
- b Licence holders must report annually to the Trust on their waste management, and this should include:
 - i quantities and types of waste recovered for reuse internally and externally;
 - ii quantities and types of waste recycled internally and externally
 - iii quantities and types of waste disposed of to landfill;
 - iv quantities and types of waste burned internally for energy recovery;
 - v waste generation related to production; and
 - vi initiatives taken to reduce waste generation and improve recovery/recycling of waste; and
 - vii Initiatives or requirements for suppliers or contract manufacturers.
- c Licence holders must have improvement objectives and targets for reduction of waste generation, and the increase of reuse and recycling rates over time, where practical. Any divergence from objectives or targets should be explained in the annual report.

Verification required

Conformance with this requirement shall be stated in writing and 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) that:

- describes the waste management policies, procedures and programmes;
- includes annual reports to the Trust on waste generation, minimisation and management; and
- details the improvement objectives and targets relating to the reduction of waste generation and the increase of reuse and recycling rates.

Notes and questions:

All ECNZ specifications include the standard requirements for waste management in parts a) and b) above. The Trust is proposing to strengthen those standard requirements now with the introduction of a new requirement in part c) which will ensure that waste is not only managed and reported but that there is also a decrease in waste generation and increase in reuse and recycling rates over time.

Q22: Do you agree with the proposed new requirement in c) above? Please explain why or why not and any suggested alternatives.

5.9 Energy management and Embodied Carbon

Criteria

- a The carpet and/or rug manufacturer and licence applicant/holder must have effective energy management policies and procedures and/or an energy management programme.
- b Licence holders must have improvement objectives and targets for reduction of energy use related to production of ECNZ-licensed products, and associated greenhouse gas emissions, over time.
Any divergence from objectives or targets should be explained in the annual report.
- c Licence holders must report annually to the Trust on their energy management. The report should include:
 - i total energy use;
 - ii breakdown of total energy use to types of energy used, including energy from renewable sources;
 - iii energy use related to production (i.e. the embodied energy of a product);
 - iv energy used during transport of raw materials (if the licence holder is the manufacturer), or transport of carpets or rugs that are imported from overseas manufacturers (if the licence holder is an importer/supplier);
 - v initiatives taken to reduce energy use and greenhouse gas emissions, and to improve energy efficiency; and
 - vi initiatives taken to calculate CO₂ greenhouse gas emissions per product.

Verification required

Conformance with this requirement shall be stated in writing and 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):

- describing the energy management policies, procedures and programmes;
- including annual reports to the Trust on energy use and management; and
- detailing performance against improvement objectives and targets relating to the reduction of energy use related to production of ECNZ-licensed products, and associated CO₂ emissions, over time.

Notes and questions:

All ECNZ specifications include the standard requirements for energy management in parts a) and b) above. The Trust is proposing to strengthen those standard requirements now with the introduction of a new requirement in part c) which will ensure that energy is not only managed and reported but that there is also a decrease in energy use and CO₂ emissions related to production of ECNZ-licensed products over time.

A goal of the Paris Agreement (which is a legally binding international treaty on climate change, adopted by 196 Parties in 2015 and entered into force in 2016) is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. To achieve this long-term temperature goal, countries aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century⁴. NZ ratified the Paris Agreement in 2016 and it took effect in 2020. This means NZ committed to reducing GHG emissions (other than biogenic methane) from 2021 and set a target to reduce net GHG emissions by 50% below gross 2005 levels by 2030. Subsequently, the Climate Change Response (Zero Carbon) Amendment Act was introduced in 2019 and with it a target for 2050; net zero emissions of all GHG (other than biogenic methane). As such, there is a requirement for NZ industry to make energy efficient and renewable energy investments and adopt best practice energy management.

The proposed changes will ensure that energy is not only managed and reported but that there is also a decrease in energy use and GHG emissions related to production of ECNZ-licensed products over time.

Q23: Do you agree with the proposed changes to the energy management and embodied carbon clause? Why or why not?

5.10 Water management

Criteria

- The carpet and/or rug manufacturer and licence applicant/holder must have effective water management policies and procedures and/or a water management programme.
- Licence holders must report annually to the Trust on water management during the carpet and/or rug making process. The report must include:
 - objectives and targets;
 - explanation for any divergence from objectives and targets; and

⁴ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

- iii initiatives taken to manage fresh water use better and improve water efficiency, including use of recycled water or harvested rainwater (e.g. during dyeing processes), if applicable.

Verification required

Conformance with this requirement shall be stated in writing and 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):

- describing the water management policies, procedures and programmes;
- where relevant, provide details of water recycling initiatives during dyeing processes;
- including annual reports to the Trust on water use and management; and
- detailing performance against continuous improvement objectives and targets relating to the reduction of water use related to production over time.

Notes & Questions

The proposed requirements in Clause 5.10 above for a water management policy, annual report and continuous improvement are similar to those included in other ECNZ specifications for energy and waste.

Q24: Do you agree with the proposed requirements above? Please explain why or why not, and any alternative suggestions.

5.11 Emissions to indoor air from the finished product

The finished carpet or rug product shall have emissions to air that meet either:

- The GuT requirements.
- The AgBB requirements.
- The Greenguard Gold requirements.
- The Carpet and Rug Institute's (CRI's) Green Label Plus programme.

Verification required

Conformance with this requirement shall be stated in writing and 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):

- For compliance with the GuT requirements – either a GuT product passport or a test report (for testing using the methods specified by GuT) and calculations demonstrating the GuT limits (applicable at the time of application) are met for the carpet or rug;
- For compliance with the AgBB requirements – a test report (for testing using the methods specified by AgBB) and calculations demonstrating the AgBB limits (applicable at the time of application) are met for the carpet or rug;
- For compliance with Greenguard Gold – either a current certificate of compliance covering the flooring, issued by Greenguard, or a test report (for testing using the methods specified by Greenguard) demonstrating the limits set by Greenguard (at the time of application) are met for the carpet or rug; and

- For compliance with CRI Green Label Plus – either a current certificate of compliance covering the flooring, issued by the CRI, or a test report (for testing using the methods specified by the CRI) demonstrating the limits set by CRI Green Label Plus (at the time of application) are met for the carpet or rug.

Explanatory Notes

- Information on the GuT testing methods and limits is available at <https://gut-prodis.eu/en/product-testing-gut/emission-test>
- Information on the AgBB testing methods can be found at <https://www.umweltbundesamt.de/en/topics/health/commissions-working-groups/committee-for-health-related-evaluation-of-building>
- Information on the Greenguard requirements can be found at <https://www.ul.com/resources/ul-greenguard-certification-program>
- Information on the CRI Green Label Plus requirements is available at <https://carpet-rug.org/testing/green-label-plus/testing-protocol-and-requirements/>

Notes and questions:

The proposed indoor air emissions criteria are the same as that included in EC-33.

Q25: Do you agree that the indoor air emissions criteria continue to be appropriate? Are there any alternative indoor air emissions criteria that are appropriate?

5.12 Product stewardship

5.12.1 Recyclingability or composting of finished product

Criteria

The applicant/ licence holder or carpet and/or rug manufacture must:

- Report initially and then annually to the Trust on the current recycling and/or composting options for the licensed product that reduces the quantity of product being landfilled once it has completed its useful life and how the current manufacturing/ design process enables the finished product to be recycled.
- Have, implement and report annually on an ongoing programme to review design and manufacturing options that increase the licensed product's ability to re-enter the carpet manufacturing process as quality raw material rather than being down-cycled after it has finished its useful life as a carpet or rug.

Verification required

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be accompanied by documentation that includes:

- an initial and annual report to The Trust on current recycling options for the licensed product that reduces the quantity of product being landfilled and how the current manufacturing/ design process enables the finished product to be recycled.

- an initial and annual report to The Trust on the programme and measures taken to increase the licensed products ability to re-enter the carpet manufacturing process as quality raw material rather than being downcycled after it has finished its useful life as a carpet or rug.

5.12.2 Take-back schemes

Criteria

- a The applicant/ licence holder must have and implement a programme in New Zealand to take back used carpet or rug product for one or more of the following purposes:
- Re-use (to be on-sold as a second-hand carpet or rug)
 - Recycling (including sending back to the parent company for recycling within the parent company's product stewardship/ recycling systems)
 - Composting
 - Downcycling for an alternative use (such as weed-mat)
- b Licence holders must report initially and then annually to the Trust on product stewardship for carpet or rug products that reduces the quantity of product being landfilled once it has completed its useful life. The report must include:
- Programme improvement objectives to reduce the quantity of used carpet or rug product being disposed to landfill;
 - Progress towards objectives;
 - Explanation for any divergence from objectives;
 - The quantity of product collected and re-distributed/ recycled/ composted via take back schemes;
 - The quantity of product collected related to production;
 - How the current manufacturing/ design process enables the finished product to be recycled;
 - Initiatives taken to promote or implement take back schemes; and
 - initiatives or requirements for suppliers or contract manufacturers.

Verification required

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company/licence holder. This statement shall be accompanied by:

- initial and annual reports to the Trust.
- supporting documentation, which may include documented processes for product take-back, marketing material to customers, a review of available options for re-use, recycling, composting and downgrading of carpet or rug products.

Notes/ Questions:

Product stewardship requirements – including recycling and take-back schemes - are included in the existing EC-33 synthetic carpet specification but are not part of the current requirements in EC-04. The proposed revisions include requirements for quantifiable improvement objectives and targets to measure against, and reporting requirements for take-back in relation to production so that the Trust can observe trends over time.

The proposed revisions include requirements for composting of the finished product. There current specifications do not consider composting .

Q26: Do you agree with the proposed changes to product stewardship requirements and reporting? Please explain why or why not and what you suggest as an alternative, if any.

6 Product characteristics

6.1 Fitness for Purpose

Criteria

- a The product must be fit for its intended use and conform, as appropriate, to relevant product performance standards.
- b The product must meet or exceed the performance requirements of the relevant local carpet classification scheme for its intended application and be rated at a minimum level of contract heavy duty;
OR
The product must meet or exceed other applicable internationally accepted standards if it is to be exported.
- c Carpet tiles must meet accepted dimensional stability tests.

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/Licence holder. This statement shall be supported by documentation:

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

6.2 Product Warranty

Criteria

- a Modular tile carpets and broadloom commercial carpets must carry a standard 15-year minimum manufacturer's warranty.
- b Residential broadloom carpets and all rugs must carry a standard 5-year minimum manufacturer's warranty.
- c The product must carry a minimum 5-year colour fastness warranty.
- d Refurbished products must carry a minimum 5-year warranty.

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/Licence holder. This statement shall be supported by documentation:

- Setting out warranty information.

7 Requirements and notes for Licence Holders

Monitoring compliance

Prior to granting a licence, the Trust 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, the Trust 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 The Trust immediately of any non-compliance with any requirements of this specification which may occur during the term of the licence. If non-compliance occurs, the licence may be suspended or terminated as stipulated in the Licence Conditions. The licensee may appeal any such suspension.

The Trust 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 marketing materials for carpets and rugs, provided that the carpets and rugs meet the requirements in this specification and in the Licence Conditions.

Wherever it appears, the Label must be accompanied by the word "Carpets and Rugs" and by the Licence Number e.g. 'licence No1234'.

The Label must be reproduced in accordance with the ECNZ programme's 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.

Appendix A: Composition table

Table 1: Carpet or Rug Composition table

FACE FIBRES	Raw Material type	Manufacturer /supplier (s)	Manufacturer environmental credentials (e.g. ISO14001)	% By weight of facing	% By weight of finished carpet product	% total recycled content in face fibre	% post-consumer recycled content in face fibre	% Post-industrial Recycled content in face fibre	Origin of all recycled content	Dyeing process
Primary										
Secondary										
Any other fibres please list										

BACKINGS	Raw Material type	Manufacturer /supplier (s)	Manufacturer environmental credentials (e.g. ISO 14001)	% by weight of backing excluding the filler	% By weight of finished product	% recycled content	% post-consumer recycled content	% Post-industrial Recycled content	Origin of all recycled content
Primary									
Secondary									
Stabilising adhesive									
Fillers*				N/A					
Any other materials/substance used in the backing please list									

*Where fillers used are not calcium carbonate, the fillers must meet the hazardous substances requirements of this specification. additional information on environmental providence will be expected to be provided at the time of assessment.

Appendix C: Hazardous substances

Table 3: Hazardous substances classifications

** Hazardous Substances (Hazard Classification) Notice 2020, EPA, October 2020*

<u>New Zealand HSNO Classes</u>	<u>Globally Harmonised System Hazard Statement*</u>	<u>Hazard Code**</u>
<u>Acute toxicity (Clause 5.5)</u>		
<u>6.1A (oral, dermal, inhalation)</u>	<u>acute oral toxicity Category 1</u>	<u>H300</u>
	<u>acute dermal toxicity Category 1</u>	<u>H310</u>
	<u>acute inhalation toxicity Category 1</u>	<u>H330</u>
<u>6.1B (oral, dermal, inhalation)</u>	<u>acute oral toxicity Category 2</u>	<u>H300</u>
	<u>acute dermal toxicity Category 2</u>	<u>H310</u>
	<u>acute inhalation toxicity Category 2</u>	<u>H330</u>
<u>6.5A</u>	<u>respiratory sensitisation Category 1</u>	<u>H334</u>
<u>6.5B</u>	<u>skin sensitisation Category 1</u>	<u>H317</u>
<u>6.7A</u>	<u>carcinogenicity Category 1</u>	<u>H350</u>
<u>6.7B</u>	<u>carcinogenicity Category 2</u>	<u>H351</u>
<u>6.6A</u>	<u>germ cell mutagenicity Category 1</u>	<u>H340</u>
<u>6.6B</u>	<u>germ cell mutagenicity Category 2</u>	<u>H341</u>
<u>6.8A</u>	<u>reproductive toxicity Category 1</u>	<u>H360</u>
<u>6.8B</u>	<u>reproductive toxicity Category 2</u>	<u>H361</u>
<u>Environmental hazards/Hazardous to the aquatic environment (Clause 5.5)</u>		
<u>9.1A</u>	<u>hazardous to the aquatic environment acute Category 1</u>	<u>H400</u>
	<u>hazardous to the aquatic environment chronic Category 1</u>	<u>H410</u>
<u>9.1B</u>	<u>hazardous to the aquatic environment chronic Category 2</u>	<u>H411</u>

*** Globally Harmonised System of Classification and Labelling of Chemicals (GHS): Annex 3 Codification of hazard statements, codification and use of precautionary statements, codification of hazard pictograms and examples of precautionary pictograms. Seventh revised edition, United Nations, 2017*

Notes:

The hazardous substances classifications have been updated to be consistent with other current ECNZ specifications.

European Risk Phrases	New Zealand HSNQ Classes	Globally Harmonised System
Toxins		
R23 toxic by inhalation	6.1B or 6.1G	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
Sensitisers		
R42 May cause sensitisation by inhalation	6.5A	Resp. Sens. 1 H334
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.

Appendix D: ~~Physical and Environmental Properties of Major Blowing Agents~~ Ozone Depleting Substances

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]

Table 4 USEPA Class 1 Ozone Depleting Substances ~~Fluorinated Blowing Agents~~

Chemical Name	Lifetime, in years	ODP1 (Montreal Protocol)	ODP2 (WMO 2011)	GWP1 (IPCC AR4)	GWP2 (IPCC AR5)	CAS Number
Group I						
CFC-11 (CCl ₃ F) Trichlorofluoromethane	45	1	1	4750	4660	75-69-4
CFC-12 (CCl ₂ F ₂) Dichlorodifluoromethane	100	1	0.82	10900	10200	75-71-8
CFC-113 (C ₂ F ₃ Cl ₃) 1,1,2- Trichlorotrifluoroethane	85	0.8	0.85	6130	5820	76-13-1
CFC-114 (C ₂ F ₄ Cl ₂) Dichlorotetrafluoroethane	190	1	0.58	10000	8590	76-14-2
CFC-115 (C ₂ F ₅ Cl) Monochloropentafluoroethane	1020	0.6	0.5	7370	7670	76-15-3
Group II						
Halon 1211 (CF ₂ ClBr) Bromochlorodifluoromethane	16	3	7.9	1890	1750	353-59-3
Halon 1301 (CF ₃ Br) Bromotrifluoromethane	65	10	15.9	7140	6290	75-63-8
Halon 2402 (C ₂ F ₄ Br ₂) Dibromotetrafluoroethane	20	6	13.0	1640	1470	124-73-2
Group III						
CFC-13 (CF ₃ Cl) Chlorotrifluoromethane	640	1	1	14420	13900	75-72-9
CFC-111 (C ₂ FCl ₅) Pentachlorofluoroethane		1	1			354-56-3
CFC-112 (C ₂ F ₂ Cl ₄) Tetrachlorodifluoroethane		1	1			76-12-0
CFC-211 (C ₃ FCl ₇) Heptachlorofluoropropane		1	1			422-78-6
CFC-212 (C ₃ F ₂ Cl ₆) Hexachlorodifluoropropane		1	1			3182-26-1

Chemical Name	Lifetime, in years	ODP1 (Montreal Protocol)	ODP2 (WMO 2011)	GWP1 (IPCC AR4)	GWP2 (IPCC AR5)	CAS Number
CFC-213 (C3F3Cl5) Pentachlorotrifluoropropane		1	1			2354-06-5
CFC-214 (C3F4Cl4) Tetrachlorotetrafluoropropane		1	1			29255-31-0
CFC-215 (C3F5Cl3) Trichloropentafluoropropane		1	1			4259-43-2
CFC-216 (C3F6Cl2) Dichlorohexafluoropropane		1	1			661-97-2
CFC-217 (C3F7Cl) Chloroheptafluoropropane		1	1			422-86-6
Group IV						
CCl4 Carbon tetrachloride	26	1.1	0.82	1400	1730	56-23-5
Group V						
Methyl Chloroform (C2H3Cl3) 1,1,1-trichloroethane	5	0.1	0.16	146	160	71-55-6
Group VI						
Methyl Bromide (CH3Br)	0.8	0.7	0.66	5	2	74-83-9

	CFC-11	CFC-12	HCFC-22	HCFC-142b	HCFC-141b	HFC-134a	HFC-152a	HFC-245fa	HFC-365mfc	HFC-227ea
Chemical Formula	CFCl_3	CF_2Cl_2	CHCl_2F	CH_2ClCF_2	CH_2ClCF_2	CH_2FCF_3	CHF_2CF_2	$\text{CF}_3\text{CH}_2\text{CF}_2$	$\text{CF}_3\text{CH}_2\text{CF}_2$	CF_3CHF_2
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 ^u	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
TLV or OEL (ppm) (USA)	100	100	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

Retrieved on 13/5/2022 from <https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>

Note: the above table includes only a selection of recognised Ozone Depleting Substances and their Global Warming Potential (GWP). The references in Clause 5.5 provide further information on Ozone Depleting Substances.

Table 5 USEPA Class II Ozone Depleting Substances ~~Non-fluorinated Blowing Agents~~

	Methyl ene Chlorid e	Trans-1,2- dichloroeth ylene	Isopentane	Cyclo - penta ne	n- pentane	Carb on Dioxi de	Isobut ane	n- buta ne	Methyl Format e (Ecoma te®)
Chemica l Formula	CH ₂ Cl ₂	C ₂ H ₂ Cl ₂	CH ₃ CH(CH ₃)C H 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 (HC OO)
Molecul ar 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 Conducti vity (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"
Flamma ble 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

" Measured at 25 °C * Measured at 24 °C

** IPCC Report 1996 *** Measured at 0 °C

Chemical Name	Lifetime, in years	ODP1 (Montreal Protocol)	ODP2 (WMO 2011)	GWP1 (AR4)	GWP2 (AR5)	CAS Number
HCFC-21 (CHFC12) Dichlorofluoromethane	1.7	0.04		151	148	75-43-4
HCFC-22 (CHF2CI) Monochlorodifluoromethane	11.9	0.055	0.04	1810	1760	75-45-6
HCFC-31 (CH2FCI) Monochlorofluoromethane		0.02				593-70-4
HCFC-121 (C2HFCl4) Tetrachlorofluoroethane		0.01-0.04				354-14-3
HCFC-122 (C2HF2Cl3) Trichlorodifluoroethane		0.02-0.08			59	354-21-2

Chemical Name	Lifetime, in years	ODP1 (Montreal Protocol)	ODP2 (WMO 2011)	GWP1 (AR4)	GWP2 (AR5)	CAS Number
HCFC-123 (C ₂ H ₂ F ₃ Cl ₂) Dichlorotrifluoroethane	1.3	0.02	0.01	77	79	306-83-2
HCFC-124 (C ₂ H ₂ F ₄ Cl) Monochlorotetrafluoroethane	5.9	0.022				2837-89-0
HCFC-131 (C ₂ H ₂ FCl ₃) Trichlorofluoroethane		0.007–0.05				359-28-4
HCFC-132b (C ₂ H ₂ F ₂ Cl ₂) Dichlorodifluoroethane		0.008–0.05				1649-08-7
HCFC-133a (C ₂ H ₂ F ₃ Cl) Monochlorotrifluoroethane		0.02–0.06				75-88-7
HCFC-141b (C ₂ H ₃ FCl ₂) Dichlorofluoroethane	9.2	0.11	0.12	725	782	1717-00-6
HCFC-142b (C ₂ H ₃ F ₂ Cl) Monochlorodifluoroethane	17.2	0.065	0.06	2310	1980	75-68-3
HCFC-221 (C ₃ HFC ₂ Cl ₆) Hexachlorofluoropropane		0.015–0.07				422-26-4
HCFC-222 (C ₃ HFC ₂ Cl ₅) Pentachlorodifluoropropane		0.01–0.09				422-49-1
HCFC-223 (C ₃ HFC ₃ Cl ₄) Tetrachlorotrifluoropropane		0.01–0.08				422-52-6
HCFC-224 (C ₃ HFC ₄ Cl ₃) Trichlorotetrafluoropropane		0.01–0.09				422-54-8
HCFC-225ca (C ₃ HFC ₅ Cl ₂) Dichloropentafluoropropane	1.9	0.025	0.02	122	127	422-56-0
HCFC-225cb (C ₃ HFC ₅ Cl ₂) Dichloropentafluoropropane	5.9	0.033	0.03	595	525	507-55-1

Note: the above table includes only a selection of recognised Ozone Depleting Substances and their Global Warming Potential (GWP). The references in Clause 5.5 provide further information on Ozone Depleting Substances.

Why are there multiple values given for the ODPs and GWPs?

The numbers in the "ODP1" column are from the Montreal Protocol. Some numbers have been updated as per amendments to the Protocol.

Data in the "ODP2" column come from WMO's *Scientific Assessment of Ozone Depletion: 2010*.¹ ODP values listed are semi-empirical and can be found in Table 5-1 of the document.

The numbers in the "GWP1" column represent global warming potentials over a 100-year time horizon. The numbers are from the Intergovernmental Panel on Climate Change (IPCC) *Fourth Assessment Report: Climate Change 2007 (AR4)*.² The values listed are for direct radiative forcing and can be found in Table 2.14 of the "Physical Science Basis" contribution to the report.

The numbers in the "GWP2" column also represent global warming potentials over a 100-year time horizon. The numbers are from the IPCC *Fifth Assessment Report: Climate Change 2014 (AR5)*. The values listed are for direct radiative forcing and can be found in Table 8.A.1 of the "Physical Science Basis" contribution to the report.³