Core Sustainable Development Goals

Cement, Concrete and Concrete Products

Standard No: CCCP v1.0iii-2017

Type 1 ecolabel standard in accordance with ISO 14024

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(Good Environmental Choice Australia Ltd)

GOOD ENVIRONMENTAL CHOICE AUSTRALIA

GECA

CONTENTS

Cement, Concrete and Concrete Products

DOCUMENT HISTORY

Status: **Current**

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Versions	Date Published	Summary of Changes
1.0	February 2017	New standard
1.0i	July 2017	Update: "Definitions and Acronyms"; Inclusion of notes in 'How to apply for GECA Certification' and 'Social and Legal Compliance' sections.
1.0ii	26 May 2021	Update: Change of social criteria, addition of SDGs, change of GECA address, change of text in "USE OF GECA STANDARDS", change of text in "HOW to APPLY FOR GECA CERTIFICATION", change of DOCUMENT HISTORY, replacing OHSAS18001 by ISO45001:2018 in DoC 37.3 and checklist. Change of exemption, audit, auditor and auditing body to exception, assessment, assessor and assurance provider, respectively according to new scheme rules, adding definitions of above terminologies.
1.0iii	30/11/2021	Document structure modified in order to fit the three product types cement, concrete and concrete products into the four categories Fit for Purpose – Health – Environmental – Social criteria.

HOW TO APPLY FOR GECA CERTIFICATION

Organisations interested in GECA certification using the Good Environmental Choice Australia Ecolabel are encouraged to read carefully through the entire standard. A **checklist at the back of the standard** provides a helpful list of all criteria within the standard.

Please contact us via email enquiries@geca.org.au or complete the brief form located here on the GECA website to begin the application process. We will then forward an **information pack** and a link to complete an **obligation-free application form**. After receiving the completed application form, an approved GECA Assurance Provider will contact the applicant and give a clear overview of the steps needed to achieve certification and provide a quote for assessment.

Note: GECA reserves the right to refuse, suspend or postpone an application if (a) the organisation does not meet minimum compliance with Environmental Law, Labour Law, Fair Pay, Work, Health and Safety, Lawful behaviour (e.g. pending or ongoing lawsuits), (b) the organisation does not have transparent reporting that is available/accessible on request or (c) the core mission of the organisation and/or product is in conflict with GECA's mission and/or is perceived by GECA to pose a risk to the GECA brand or reputation.

DEFINITIONS & ACRONYMS

% w/w: Percent weight/weight, equivalent to percent by mass.

AAC: Autoclaved Aerated Concrete is a type of lightweight, pre-cast concrete manufactured in an autoclave to contain air bubbles/pockets throughout the material.

Admixtures: Ingredients in concrete other than cement, water, and aggregate that are added to the mix immediately before or during mixing.

Aggregate: Aggregates are inert granular materials such as sand, gravel, or crushed stone that, along with water and cement, are an essential ingredient in concrete.

Alkali activated cement: A binder composed of one or more mineral components containing aluminium and silicon oxides, and generally one or more activators.

Alternative (non-portland) cement: Any alternative cement (displaying cementious properties) that is used in place of general-purpose cement and is based on chemistries other than general purpose cement chemistries. This includes but is not limited to geopolymers/alkali activated cements.

AS: Australian Standard.

Assessment: Process performed by the assessor to determine if the product conforms with the applicable GECA Standard.

Assessment report: Full document composed by the assurance provider that states how the nominated product conforms or fails to conform to GECA standards. This report shall include appropriate and substantial evidence to justify conformance decision.

Assessor: The individual performing the assessment as an employee or contractor of the Assurance Provider.

Assurance provider: Person or organisation accredited by the Independent Appointment Panel performing the conformance assessment.

ASTM: American Society for Testing and Materials.

Captured or reclaimed water: Rainwater captured on either the concrete supplier's manufacturing site, or another site, or water recycled/recovered from previous use such as blackwater or greywater from any locations.

CAS number: Chemical Abstract Service number. Unique CAS numbers are assigned to chemical compounds as a means of identification.

Cement: Ground substance which has the ability to set and harden by means of chemical reactions when mixed with water, and which after hardening, retains its strength and stability. In this standard cement includes general purpose cement and alternative (non-portland) cement.

Concrete: Material formed by mixing cement, aggregate (coarse and/or fine) and water, with or without the incorporation of admixtures and additions.

Copper slag: By-product formed during the copper smelting process where the molten copper forms at the bottom of the furnace and molten slag is formed on top and can be drained off.

Demonstration of Conformance (DoC): Defines sources of evidence acceptable to GECA to demonstrate compliance with each criterion of the standard. An applicant manufacturer must provide documentation to the approved assurance providers in order to demonstrate conformance of its products under assessment. For further information on Demonstration of Conformance requirements see Evidence of Conformance at the end of this standard.

EMS: Environmental Management System.

EPD: Environmental Product Declaration.

Exception: An exception is granted when an applicant is given permission by the GECA CEO or Board to become certified despite not meeting a particular criterion in the standard as identified during the assessment process, usually with a mandatory transition period.

Fly ash: A residue generated in combustion of fine particles that rise with the flue gases. Usually refers to the ash produced during the combustion of coal.

GECA: Good Environmental Choice Australia Ltd.

GECA mark: The Good Environmental Choice Australia Mark, the mark awarded to applicants complying with GECA ecolabelling standards after assessment by a GECA approved assessor/s.

General purpose cement (as defined in AS 3972): A hydraulic cement containing portland cement and, at the discretion of the cement manufacturer, may contain a combination of mineral additions alone or in combination with minor additional constituents (maximum 5%) up to 7.5% by mass of the total cement.

Geopolymer cement: A binder consisting of an inorganic polymeric material which is formed as a result of a geopolymerisation process and is regarded as an alternative to general purpose cement. Materials suitable for geopolymerisation include alumosilicates (minerals composed of aluminium, silicon, and oxygen), which can be found in nature (metakaolin, natural pozzolanic materials) or industrial wastes (flyash, GBFS).

GGBS: Ground Granulated Blast Furnace Slag is a by-product of the iron and steel industry. The slag is the left-over material (which floats to the top) when smelting iron ore in a blast furnace. Granulated slag is formed by quickly cooling (quenching) molten slag with water and ground to a fine powder it possesses hydraulic properties when suitably activated.

GHS: Global Harmonized System of Classification and Labelling of Chemicals.

Heavy metal: Elements including lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), arsenic (As) and cobalt (Co).

IARC: International Agency for Research on Cancer.

ISO: International Organization for Standardization.

LCA: Life Cycle Assessment.

Packaging: Materials used for the transport, containment or display of products.

Portland cement: A hydraulic cement that is manufactured as a homogenous product by grinding together portland cement clinker and calcium sulphate (gypsum). It is also referred to as Ordinary Portland Cement.

Portland cement clinker: Partially fused product resulting from intimate mixing of calcareous and argillaceous or other silica, alumina or iron-bearing materials, or any combination of these materials, and burning these at a clinkering temperature.

Post-consumer material: Post-consumer material is generated by end-users (including households, businesses, industries and institutions) from products that can no longer be used for their intended purpose. Post-consumer material also includes the return of material from distribution chains.

Pozzolanic materials: A siliceous or siliceous and aluminous material, which in itself possesses little or no cementing property, but will in a finely divided form - and in the presence of moisture - chemically react with calcium hydroxide at ordinary temperatures to form compounds possessing cementitious

properties.

Pre-cast concrete: Concrete that is cast in a factory setting including a wide range of products, including for example concrete bricks, blocks, paving stones, and wall panels.

Pre-consumer material: Pre-consumer (sometimes also referred to as post-industrial) material is recovered from the manufacturing process before it is sold to end consumers.

Producer / Manufacturer: For the purpose of this standard these terms comprise both manufacturers of a product as well as service suppliers. These may not necessary be the companies that apply for GECA certification, since certification can also be awarded to retailers of a product. However, for some criteria it is required that the original manufacturer of the product conforms to particular requirements.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

QMS: Quality Management System.

Ready-mix concrete: A common form of concrete which is prepared for delivery at a concrete plant instead of being mixed on the construction site.

Recycled content: Denotes the proportion of a product that is generated from post-consumer and pre-consumer material.

SCM: Supplementary Cementitious Materials that are a by-product from other processes or natural materials (e.g. pozzolans, ground granulated blast furnace slag (GGBS), fly ash, amorphous silica).

SDGs (Sustainable Development Goals): The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 SDGs, which are a set of goals, targets and indicators.

SDS: Safety Data Sheet (formerly Material Safety Data Sheet – MSDS). Contains information relating to the composition, classification and risk assessment of the product. To qualify as suitable, the SDS and information therein must not be more the 5-years old.

WSA's CPA: World Steel Association's (WSA) Climate Action programme | worldsteel.

WBCSD-CSI: The World Business Council for Sustainable Development's Cement Sustainability Initiative is a global effort by 25 major cement producers with operations in more than 100 countries.

Note: All percentages described in this document are to be measured as percent by mass.

ABOUT GECA

At GECA, we help organisations and individuals to *make*, *buy* and *do* better for people and planet. We are a purpose-driven not-for-profit that stands for **integrity**, **independence** and **impact**.

We offer a suite of services designed for anyone committed to continuous improvement in their sustainability, including Australia's only not-for-profit multi-sector ecolabelling program.

GECA has proudly been a Certified B Corp since November 2015. We are part of a global movement of organisations in over 50 countries across 130 industries trying to make the world a better place.

AN OVERVIEW OF GECA'S STANDARDS

Following ISO 14024: *Environmental labels and declarations - Type I environmental labelling - Principles and procedures* and ISEAL frameworks for global best practice in ecolabelling, we've developed our rigorous standards, which are independently assessed by GECA Approved Assurance Providers.

ISO 14024 is internationally recognised and has been adopted as a benchmark for life cycle-based ecolabels by GEN, the international federation of ecolabelling bodies. Our standards are relevant to critical Australian industries, and GECA is the only Australian GEN member.

ISO 14024 requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable. The purpose of voluntary environmental labels and declarations is to communicate **verifiable and accurate** information for the numerous environmental and social aspects of goods and services. As required by the Trade Practices Act, the information cannot be misleading. Such transparent information encourages the demand for, and supply of, those products or services that cause less harm to people and planet, thereby stimulating the potential for market-driven continuous environmental and social improvement.

While following ISO 14024 for environmental, health and fit for purpose criteria, **GECA's standards go above and beyond**, including social impact criteria. At GECA, we know that nothing can be truly sustainable if it only looks at environmental impacts and ignores the treatment of people. GECA standards identify the **environmental**, **human health**, **fit for purpose** and **social impact** criteria that the top environmentally and socially performing products or services sold in the Australian marketplace can meet to be recognised by GECA as "environmentally and socially preferable".

All GECA standards are based on life cycle thinking, allowing organisations to understand their sustainability impacts and where they occur within their operation's life cycle, **from raw materials to end-of-life**. We have used these principles to set criteria to address relevant sustainability loads typical in a product category. As such, this standard may also offer guidance for organisations to reduce the harmful impacts of their products or services. Organisations may use the criteria in this standard as an optimisation tool to design and refine the processing, manufacturing, packaging and delivery of their products or services. Also, organisations may uncover other sustainability issues and potential measures within the product's or service's life cycle.

At GECA, we encourage both manufacturers and retailers to include and adapt improvements in their processes and product designs that will enable them to achieve even better sustainability results where technically possible. GECA welcomes feedback where this has occurred.

While all GECA ecolabelling standards are voluntary, nevertheless they contain criteria that address compliance with specific laws. Also, a GECA standard may recognise specific Australian standards. A prerequisite for certification under the GECA ecolabel is to satisfy the relevant Australian and international standards, where required by law. However, Australia's compulsory standards typically focus on fit for purpose criteria instead of assuring environmental and social preferability. **GECA's ecolabelling standards go beyond mandatory Australian standards** and define an environmental and social benchmark for specific product categories.

Where a product or service is certified under our standard, it may display the GECA ecolabel (the "Good Environmental Choice Australia Mark") to show that it has been independently assessed and demonstrates conformance with the environmental and social criteria detailed in this standard.

Products or services certified as conforming to our standards may gain a marketing advantage in government and business procurement programs, as well as greater market recognition in general because of their independently verified sustainability attributes. GECA certification demonstrates leadership and may help to future-proof supply chains and improve economic performance. By generating genuine benefits for people and planet, it is possible to gain increased customer loyalty.

For further information please contact GECA
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STRUCTURE OF THE STANDARD

Within each section of this standard, you will find criteria and Demonstrations of Conformance (DoCs). The criteria outline the requirements for the product and applicant company regarding its sustainability performance. The DoCs list the information required to verify compliance with the criteria. Selected sections also contain introductory text which outlines the purpose behind the criteria or the reason for its inclusion in the standard.

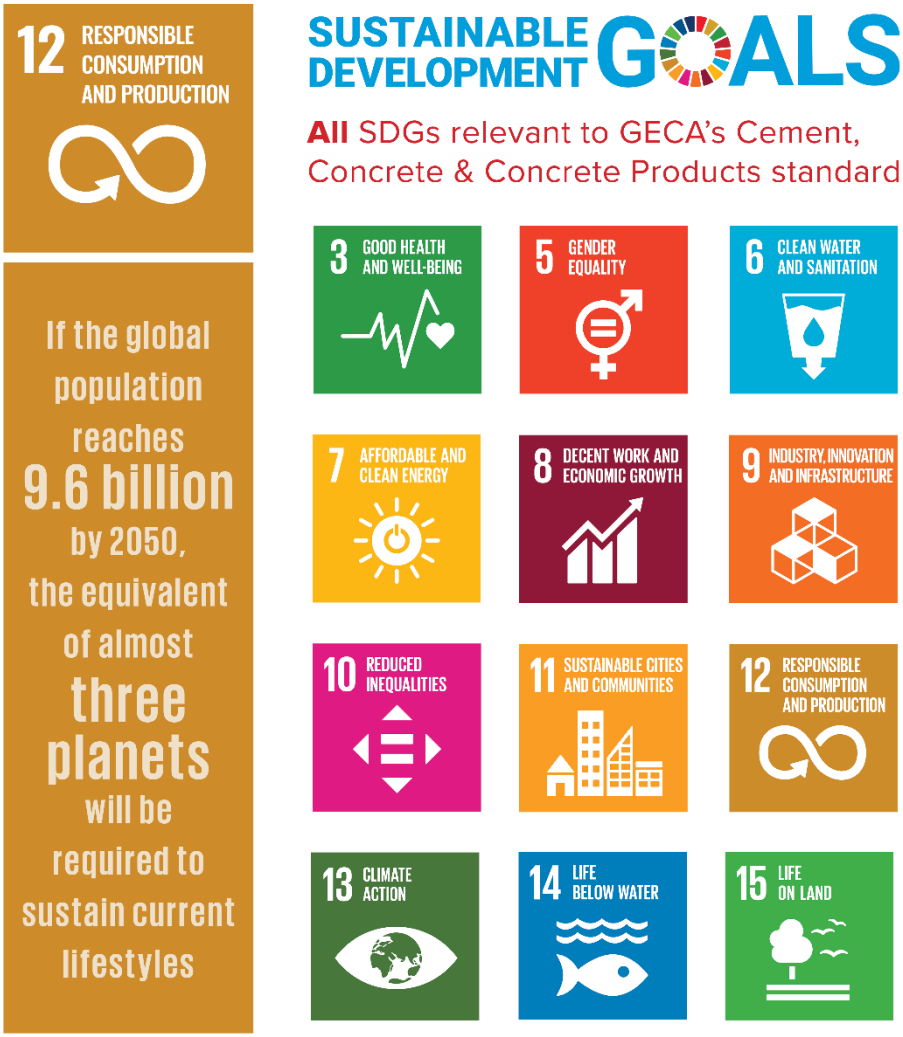
REQUESTING ADDITIONAL EVIDENCE

DoCs are listed for each criterion within this standard; however, a GECA Approved Assessor may request additional information to ensure conformance on a case-by-case basis. Therefore, the DoCs listed below should be considered a guide to the applicant organisation's minimum DoCs.

RELEVANCE WITH SUSTAINABLE DEVELOPMENT GOALS

Each of GECA's standards is linked to specific Sustainable Development Goals (SDGs) set by the United Nations. The 17 SDGs are an internationally agreed framework for urgent action to achieve the 2030 Agenda for Sustainable Development adopted by all UN member states in 2015, including Australia. The goals address global challenges, including global inequality, climate change, environmental degradation, peace and justice. Each standard criterion answers specific SDG targets.

Each criterion within this standard answers to a specific SDG target. These specific SDGs are shown below and are highlighted throughout each section of the standard, including the core SDGs related to this standard as further illustrated.



Core SDGs relevant to GECA's Cement, Concrete and Concrete Products standard

CORE SDG: 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

GECA Standard Criterion

- All criteria contribute

SDG 9 Specific target 9.1

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

SDG 9 Specific target 9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

CORE SDG: 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

GECA Standard Criterion

- Resource efficiency: criteria 15, 19, 20, 24, 26, 27, 29, 34
- Hazardous substances: criteria 5-13

SDG 12 Specific target 12.2

By 2030, achieve the sustainable management and efficient use of natural resources.

SDG 12 Specific target 12.4

By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

CORE SDG: 13 CLIMATE ACTION

GECA Standard Criterion

- Energy and greenhouse gas reduction: criteria 15, 19, 26

SDG 13 Specific target 13.2

Integrate climate change measures into national policies, strategies and planning.

CORE SDG: 15 LIFE ON LAND

GECA Standard Criterion

- Environmental remediation: criteria 14, 16, 22, 32
- Environmental legislation: criterion 37

SDG 15 Specific target 15.1

By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

SDG 15 Specific target 15.2

By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

SDG 15 Specific target 15.5

Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

BACKGROUND

Concrete is a versatile building material made of cement, sand, aggregates, water and admixtures. Cement is the 'glue' which binds the ingredients of concrete together. Due to its properties of strength, durability, affordability, and the availability of raw materials, concrete is a popular choice for many building projects. In fact, concrete is the most-used building material in the world. According to the International Energy Agency's *Technology Roadmap*, global cement production is predicted to grow by 12-23% by 2050.

However, the impacts of cement and concrete production on people and planet can be significant. For example, significant environmental loads stem from the sourcing and manufacturing phase in the life cycle, such as sourcing of raw materials, water and energy usage, and release of CO_2.

Improper extraction of raw materials such as sand, for example, can lead to the destruction of coastal and riverine ecosystems. Damage to these natural environments can result in removing vital ecosystem services such as flood control and water purification. Large volumes of concrete in our cities can also contribute to the heat-island effect, raising temperatures in urban areas.

Each year, more than 4 billion tonnes of cement are produced, accounting for around 8% of global CO_2 emissions. Over half of these emissions are linked to the process for producing clinker, one of the main ingredients in cement. To bring the cement sector in line with the Paris Agreement on climate change, its annual emissions will need to fall by at least 16% by 2030.

In 2012, a study found that concrete production was responsible for 9% of global industrial water withdrawals, and predicted that by 2050, 75% of the water demand for concrete production would likely occur in regions expected to experience water stress.

Recent sustainable initiatives aim to improve cement and concrete production and composition and lessen its environmental impact. The GECA standard seeks to support and reward these efforts to minimise cement and concrete products' impacts.

It is designed to ensure the cement and concrete products are fit for purpose, reduce the impact on human health and environment, and are ethically made. It enables manufacturers to access credits under green building/infrastructure rating tools and assures green procurers and specifiers when looking for products with a lower environmental impact. Also, this standard can contribute towards Green Star credits and ISCA credits.

The standard sets requirements that aim to provide a benefit by:

- reducing the impacts of raw material sourcing
- restricting carbon emissions
- preventing the use of specific hazardous materials and toxic heavy metals such as known carcinogens and mutagens
- requiring efficient waste management
- encouraging recovery, reuse, recycling and responsible disposal of materials and packaging
- ensuring workers and suppliers through the supply chain can expect fair pay, equal opportunity, and a safe working environment

FIT FOR PURPOSE CRITERIA

1. STANDARD CATEGORY SCOPE

1.1 Scope Schedule

Criterion 1: This standard is applicable to the following categories of cement, concrete and concrete products. The scope of this standard is applicable to:

Category A Cement and Supplementary Cementitious Materials (SCM)	Category B Concrete	Category C Concrete Products
Including but not limited to: ▪ General-purpose cement and mixtures of general-purpose cement blended with materials such as fly ash, slag or naturally occurring pozzolanic materials.	Including but not limited to: ▪ Ready-mix concrete ▪ Concrete manufactured in temporary batching plants (on site)	Products with >50% (by weight) concrete including but not limited to: ▪ Concrete masonry ▪ Precast concrete ▪ Concrete pipes ▪ Concrete roof tiles ▪ Autoclaved Cellular Concrete (ACC) e.g. in panels or noise barriers

Exclusions and Notes

Any adhesive products based on cementitious materials are excluded from this standard as they fall under GECA's Adhesives, Fillers and Sealants standard. Concrete and concrete products based on alternative (non-portland) cement are included in Category B and C, respectively.

Demonstration of Conformance

DoC 1.1: A brief description of the product(s) or product range as they apply to this standard's scope, accompanied by a list including the location of plants, manufacturing/assembly sites and the origin of the virgin and/or alternative raw materials.

1.2 Structure of this Standard

The standard contains three distinct categories (as defined in Criterion 1). Each of the parts fit for purpose, health and environmental criteria are divided into sections containing the criteria applicable to that category. The requirements for environmental claims and the social and legal requirements are common for all three categories and hence are mentioned at the end of the three sections.

2. FITNESS FOR PURPOSE

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

Category A – Cement

Criterion 2: The product shall be fit for its intended purpose and shall meet performance requirements of relevant Australian standards, or prove fitness for purpose with other appropriate documentation.

General-purpose cement-based products shall meet the requirements of AS3972 and be tested in accordance with AS/NZS 2350.

To ensure the quality standards are maintained, a Quality Management System (QMS) consistent with ISO 9001 shall be in place.

Demonstration of Conformance

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

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

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

Category B – Concrete

Criterion 3: The product shall be fit for its intended purpose and must meet performance requirements of relevant Australian or international standards or prove fitness for purpose with other appropriate documentation.

Ready-mix concrete shall meet the requirements of AS1379 (or equivalent international standards) and be tested in accordance with AS1012. Concrete made from Geopolymer Cement needs to be in accordance with the guidelines in the handbook "Z16- Geopolymer Concrete; a Recommended Practice" published by Concrete Institute of Australia - Concrete Institute of Australia. To ensure the quality standards are maintained, a Quality Management System (QMS) consistent with ISO 9001 shall be in place.

Demonstration of Conformance

DoC 3.1: Documentation identifying applicable standards or performance requirements met by the product supported by relevant test reports and results. Documentation showing that a QMS is in place.

Category C – Concrete Products

Criterion 4: The product shall be fit for its intended purpose and must meet performance requirements of relevant Australian or international standards or prove fitness for purpose with other appropriate documentation.

Relevant standards include, but are not limited to: AS3600; AS 3700; ASNZS 4058.

Further guidance on applicable standards specific to product types can be found here:

http://infostore.saiglobal.com/store/getpage.aspx?path=/publishing/shop/productguides/buildingproducts.htm?site=bcmicrosite

To ensure the quality standards are maintained, a Quality Management System (QMS) consistent with ISO 9001 shall be in place.

Demonstration of Conformance

DoC 4.1: Documentation identifying applicable standards or performance requirements met by the product supported by relevant test reports and results. Documentation showing that a QMS is in place.

HEALTH CRITERIA

3. HAZARDOUS MATERIALS

The criteria in this section are intended to address some of the main hazardous substances found across this product category which may be added to the final product or to product ingredients during manufacturing. The intention is to reduce the use of hazardous materials and to prevent pollutants entering the environment and to protect human health.

Category A – Cement

3.1 Banned Substances

Certain substances or compound classes have been identified as particularly harmful for human health and/or the environment.

Criterion 5: In order to promote the reduction of pollutant hazards in the manufacture, use, or disposal of products the following substances (and where appropriate, their compounds) shall not be added to products or used during manufacture:

- Compounds or ingredients that are or may decompose into substances that are classified as a known or suspected endocrine disruptor, carcinogen, mutagen or teratogen, including:
  - any R45 (H350), R46 (H340), R48 (H372, H373), R49 (H350) substances,
  - IARC group 1 or 2A substances,
  - EU consolidated list of C/M/R category 1 or 2 substances.
- Substances of Very High Concern listed on the REACH Candidate list (http://echa.europa.eu/candidate-list-table).
- Toxic heavy metals and their compounds, or ingredients containing heavy metals and their compounds, including lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), arsenic (As), selenium (Se), cobalt (Co), tin (Sn) and antimony (Sb), and Nickel must not be deliberately added or used.

Exceptions:
Above substance may be present as contaminants. Contaminants are defined as residues from raw material production or from a previous lifecycles (in case of recycled materials) present in the finished product, in raw materials or in alternative fuels used in the kiln, but not substances that are added to a raw material or product for a purpose, irrespective of quantity. Trace levels of contaminants may not exceed publicly available safety standards.

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

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

Demonstration of Conformance

DoC 5.1: Ingredients list for the product and Safety Data Sheet (SDS) for each ingredient, identification of potential contamination sources. If a substance is present as contaminant, applicable safety standards and procedures that are met have to be detailed.

DoC 5.2: Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.

Category B – Concrete

3.2 Banned Substances

Certain substances or compound classes have been identified as particularly harmful for human health and/or the environment.

Criterion 6: In order to promote the reduction of pollutant hazards in the manufacture, use, or disposal of products the following substances (and where appropriate, their compounds) shall not be added to products or used during manufacture:

- Compounds or ingredients that are or may decompose into substances that are classified as a known or suspected endocrine disruptor, carcinogen, mutagen or teratogen, including:
  - any R45 (H350), R46 (H340), R48 (H372, H373), R49 (H350) substances,
  - IARC group 1 or 2A substances,
  - EU consolidated list of C/M/R category 1 or 2 substances.
- Candidate List of substances of very high concern for Authorisation - ECHA
- Toxic heavy metals and their compounds, or ingredients containing heavy metals and their compounds, including lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), arsenic (As), selenium (Se), cobalt (Co), tin (Sn) and antimony (Sb) and Nickel, must not be deliberately added or used.

Exceptions:

Above substance may be present as contaminants. Contaminants are defined as residues from raw material production or from a previous lifecycles (in case of recycled materials) present in the finished product, but not substances added to raw material or product for a purpose, irrespective of quantity. Trace levels of contaminants may not exceed publicly available safety standards.

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

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

Demonstration of Conformance

DoC 6.1: Ingredients list for the product and SDS for each ingredient, identification of potential contamination sources. If a substance is present as a contaminant, applicable safety standards and procedures that are met have to be detailed.

DoC 6.2: Third-party laboratory test reports for a leaching test (TLCP) to test for heavy metals and organic compounds of environmental concern (according to the US EPA 1311 test Toxicity Characteristic Leaching Procedure (TCLP) or AS4020).

DoC 6.3: Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.

3.3 Asbestos

Inhalation of asbestos fibres may lead to a number of serious health risks, including asbestosis and the cancer mesothelioma.

Criterion 7: It shall be shown that procedures are in place to identify and reject material (e.g. recycled aggregate raw feed) containing asbestos.

Demonstration of Conformance

DoC 7.1: Copy of procedure in place and proof of implementation of the procedure (e.g. checklists, testing procedures and results).

3.4 Admixtures and Colours

Admixtures are ingredients (mostly organic chemicals) added to the concrete mixture to improve or change properties such as setting times, workability and durability. They are mostly and conventionally added in amounts of less than 5% by weight. Polished concrete floors or certain types of architectural or decorative concrete may also use colours with ingredients potentially harmful for people and planet.

Criterion 8: Any admixtures used shall meet the requirements of AS 1478 (Chemical Admixtures for concrete, mortar and grout) and the following information shall be made available to the end-user:

- Name and type of admixture used

- Chemical composition (chemical class and classification of the principal active ingredient)

Demonstration of Conformance

DoC 8.1: SDSs for all admixtures uses accompanied by documentation showing that requirements of AS 1478 are met.

Criterion 9: Any colours used in the product shall pass criterion 6.

Demonstration of Conformance

DoC 9.1: Ingredients list for the product and SDS for each ingredient, identification of potential contamination sources. If a substance is present as a contaminant, applicable safety standards and procedures that are met have to be detailed.

Category C – Concrete Products

3.5 Banned Substances

Certain substances or compound classes have been identified as particularly harmful for human health and/or the environment.

Criterion 10: In order to promote the reduction of pollutant hazards in the manufacture, use, or disposal of products the following substances (and where appropriate, their compounds) shall not be added to products or used during manufacture:

- Compounds or ingredients that are or may decompose into substances that are classified as a known or suspected endocrine disruptor, carcinogen, mutagen or teratogen, including:
  - any R45 (H350), R46 (H340), R48 (H372, H373), R49 (H350) substances,
  - IARC group 1 or 2A substances,
  - EU consolidated list of C/M/R category 1 or 2 substances.
- Substances of Very High Concern listed on the REACH Candidate list (http://echa.europa.eu/candidate-list-table).
- Toxic heavy metals and their compounds, or ingredients containing heavy metals and their compounds, including lead (Pb), cadmium (Cd), mercury (Hg), chromium (Cr), arsenic (As), selenium (Se), cobalt (Co), tin (Sn) and antimony (Sb), and Nickel must not be deliberately added or used.

Exceptions:
Above substance may be present as contaminants. Contaminants are defined as residues from raw material production or from a previous lifecycles (in case of recycled materials) present in the finished product, but not substances that are added to a raw material or product for a purpose, irrespective of quantity. Trace levels of contaminants may not exceed publicly available safety standards.

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

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

Demonstration of Conformance

DoC 10.1: Ingredients list for the product and SDS for each ingredient, identification of potential contamination sources. If a substance is present as contaminant, applicable safety standards and procedures that are met have to be detailed.

DoC 10.2: Third party laboratory test reports for a leaching test (TLCP) to test for heavy metals and organic compounds of environmental concern (according to the US EPA 1311 test Toxicity Characteristic Leaching Procedure (TCLP) or AS 4439 – 1997 Bottle Leaching Procedure).

DoC 10.3: Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.

3.6 Asbestos

Inhalation of asbestos fibres may lead to a number of serious health risks, including asbestosis and the cancer mesothelioma.

Criterion 11: It shall be shown that procedures are in place to identify and reject material (e.g. recycled aggregate raw feed) containing asbestos.

Demonstration of Conformance

DoC 11.1: Copy of procedure in place and proof of implementation of the procedure (e.g. checklists, testing procedures and results).

3.7 Admixtures and Colours

Admixtures are ingredients (mostly organic chemicals) added to the concrete mixture to improve or change properties such as setting times, workability and durability. They are mostly and conventionally added in amounts less than 5% by weight.

Polished concrete floors or certain types of architectural/decorative concrete may also use colours with ingredients potentially harmful or with a potential impact on the environment.

Criterion 12: Any admixtures used have to meet the requirements of AS 1478 (Chemical Admixtures for concrete, mortar and grout) and the following information has to be made available to the end-user:

- Name and type of admixture used
- Chemical composition (chemical class and classification of the principal active ingredient)

Demonstration of Conformance

DoC 12.1: SDSs for all admixtures uses accompanied by documentation showing that requirements of AS 1478 are met.

Criterion 13: Any colours used in the product must pass Criterion 10.

Demonstration of Conformance

DoC 13.1: Ingredients list for the product and SDS for each ingredient, identification of potential contamination sources. If a substance is present as a contaminant, applicable safety standards and procedures that are met have to be detailed.

ENVIRONMENTAL CRITERIA

Category A – Cement

4. MATERIAL REQUIREMENTS (CATEGORY A – CEMENT)

This section's criteria address impacts that may occur over the life cycle of a product that can be avoided or mitigated during the design phase of product development. Unless otherwise stated, this section's requirements apply to each type of material contained in the finished product regardless of weight.

4.1 Raw Material Sourcing

Criterion 14: Most virgin raw materials (e.g. limestone, silica, alumina, iron oxide, gypsum) needed for cement production require some form of mining or quarrying. These activities can result in intensive land-use and exploitation of natural resources (excavations, quarrying, groundwater and limestone), creating environmental and social issues. This can include threatening biodiversity and ecosystems in adjacent areas, erosion in coastal and riverbanks, or pollution of waterways through increased turbidity and suspended solids. Local impacts may also include noise and dust pollution, and landscape damage which may be considered significant by the local community. Virgin mined/quarried raw materials shall come from mining/quarrying operations:

- Which have and implement a management plan to minimise adverse effects from noise, vibration, dust, and discharges to water and land;
- With a documented rehabilitation program;
- With an implemented EMS in accordance with ISO 14001;
- With community engagement or cultural heritage plans.

Demonstration of Conformance

DoC 14.1: Information about the virgin material procurement program and records of the supplier, nature and geographical source of all virgin mined material inputs; and

DoC 14.2: Certificates or other evidence of implemented EMS; documented mine rehabilitation program, and community engagement or cultural heritage plans.

4.2 Manufacturing Process

Cement manufacturing processes use energy and water, generate waste, and can cause significant amounts of CO_2 emissions and a range of pollutants. The main environmental impacts of cement manufacturing can occur on a global, regional or local scale. Global impacts include the use of energy (e.g. in the kiln, in grinding operations or through transportation), the release of CO_2, and the use of fossil resources as fuel for the kiln. Regional and local impacts would include the emission of pollutants such as NO_x, SO_x, and dust.

Research and development in the cement have included improvements in processing technologies to reduce energy and fuel use, usage of alternative fuels in the kiln, replace an amount of clinker in the cement with mineral additives and blend cement with supplementary cementitious materials (SCM).

Another approach to reducing CO_2 emissions is is by using alternative cement chemistries, including the development of novel cements. The goal of the development of these novel cements is the use of different raw materials than used in the usual cement manufacture to further reduce CO_2 emissions and energy requirements.

Criterion 15: The product shall fulfil **at least one** of the following criteria:

SCM: The product shall contain at least 30% of Supplementary Cementitious Materials (SCM). SCM materials must comply with AS 3582 for Supplementary Cementitious Materials for use with general-purpose and blended cement series; or

CO_2 Emissions: It shall be demonstrated that the manufacturing plant(s) has implemented technologies/methods that lead to a reduction in CO_2 emissions. The CO_2 emissions of the manufacturing plant(s) must be lower than 605 kg CO_2/tonne of cement.

Demonstration of Conformance

DoC 15.1: SCM: Information about the type and amount of SCM in the cement, and calculations showing the % (by mass) of SCM in the product. The amount of SCM that may already be contained in the general-purpose cement (maximum 7.5%) does not count towards the 30% SCM; or

DoC 15.2: CO_2 emissions: Information about technologies/methods used together with documentation listing details on CO_2 emissions. The calculation of CO_2 emissions has to be in accordance with the World Business Council on Sustainable Development's – Cement Sustainability Initiative's (WBCSD-CSI) "CO_2 and Energy Accounting and Reporting Standard.

4.3 Environmental Management Systems

An Environmental Management System (EMS) integrates procedures and processes for training of personnel, monitoring and reporting of environmental performance information to stakeholders of an organisation. The EMS aims to identify and address significant environmental impacts of the manufacturing operations.

Criterion 16: The applicant/manufacturer shall have an Environmental Management System in place that is in accordance with ISO 14001. The environmental aspects including but not limited to the following shall be among the ones addressed by the EMS:

- Emissions to air (including but not limited to: SO_2, dust/PM)
- Releases to water and land
- Waste management (waste and by-products)
- Storage and handling of hazardous raw materials and dangerous goods
- Noise management

Demonstration of Conformance

DoC 16.1: Documentation showing an Environmental Management System (in accordance with ISO

14001) is in place which addresses the above mentioned environmental aspects supported by relevant documentation such as ISO14001 certificate, Aspects and Impacts Register, recent certification assessment report and any other information as per the discretion of the assurance provider.

5. DESIGN FOR ENVIRONMENT (CATEGORY A – CEMENT)

Criterion 17: Packaging shall comply with at least one of the following:

- Each material constituting >20% by weight of the total primary and secondary packaging used, must contain at least 50% recycled content by weight;
- Each material constituting >20% by weight of the total primary and secondary packaging used, must be derived from plant-based materials (e.g. PLA plastics); or
- Each separable item constituting >20% by weight of the total primary and secondary packaging, must be recyclable in Australia. This may be demonstrated using the Australian Packaging Covenant's Packaging Recyclability Evaluation Portal (PREP).

Paper and cardboard packaging must be either certified under recognised forest certification scheme (e.g. FSC or PEFC) or contain at least 30% recycled content by weight.

Material used for the transport of products (tertiary packaging) and whose disposal is not the responsibility of the end-consumer may be excepted from the above requirements if they are re-used by the applicant, or are recyclable in specialist recycling facilities.

Demonstration of Conformance

DoC 17.1: Details of materials used as packaging, including information on the input of recycled and virgin materials reported by weight if applicable. The recycled content can be averaged over a 12-month period to find the amount or range of recycled content; and/or

DoC 17.2: Evidence of recyclability or copy of PREP Assessment Report; and/or

DoC 17.3: Evidence of certification under relevant forest certification scheme; and/or

DoC 17.4: Details of re-use programs for transport materials within the applicant company.

6. ENVIRONMENTAL CLAIMS (CATEGORY A – CEMENT)

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

6.1 Public Claims

Criterion 18: The applicant's public claims regarding the product's environmental performance beyond this standard's scope (other than GECA certified content) shall be independently verified as compliant with ISO 14021: Environmental Labels and Declarations – 'Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements. Also refer to the GECA Rules for the Use of the Good Environmental Choice Australia Mark.

Demonstration of Conformance

DoC 18.1: Report or statement from the applicant listing all public environmental claims regarding the product by the applicant, demonstrating compliance to ISO14021; and

DoC 18.2: A signed declaration from an Executive Director of the applicant company stating that any environmental claims made by the company regarding the product in the future will be verified using ISO 14021 and/or the GECA certification

Category B – Concrete

7. MATERIAL REQUIREMENTS (CATEGORY B – CONCRETE)

This section's criteria address impacts that may occur over the life cycle of a product that can be avoided or mitigated during the design phase of product development. Unless otherwise stated, this section's requirements apply to each type of material contained in the finished product regardless of weight.

7.1 Raw Material Sourcing

Most raw materials needed for cement production and the mixing of concrete require some form of mining or quarrying. These activities can be linked to intensive land-use and exploitation of natural resources (excavations, quarrying, groundwater and limestone) which can create environmental and social issues. This can include threatening of biodiversity and ecosystems in adjacent areas, erosion in coastal and riverbanks, or pollution of waterways through increased turbidity and suspended solids. Local impacts may also include noise and dust pollution, and landscape damage which may be considered significant by the local community.

Cement only makes up about 10–15% of the concrete, but cement's production is still a significant contributor to the overall environmental impact. Other raw materials of concrete that involve mining or quarrying include aggregates.

Aggregates typically account for 70–80 % of the concrete volume and play a substantial role in different concrete properties such as workability, strength, dimensional stability and durability. Most often, sand is used as fine aggregate and various sized and shaped gravel as coarse aggregate. Both sand and gravel are usually obtained through mining. This can be in-stream extraction (dredging) or land mining usually involving blasting. Although impacts from aggregate sourcing are relatively small compared to the environmental impact of cement production, they can be important problems on a regional scale.

7.2 Cement

Criterion 19: The cement used in the concrete shall be GECA certified or fulfil the requirements listed in criterion 15 (Category A - Cement); or

The portland cement content in the product shall be reduced by 30% by mass (compared to the reference case); or

For products based on alternative cement chemistry (e.g. alkali activated cement): It shall be demonstrated that the concrete is produced using alternative (to general-purpose cement) cement chemistries which lead to less virgin raw materials being used, and reduced CO_2 emissions and energy

requirements.

However, the following conditions apply:

- The product must be accompanied by an EPD or LCA reporting/disclosing the other environmental impacts.[1]
- Only Ground blast furnace slag and Fly ash (GBFS) geopolymers allowed when compared to MK Metakaolin (MK) geopolymers.

Demonstration of Conformance

DoC 19.1: GECA certificate for the cement used in the concrete; or

DoC 19.2: See DoC in Criterion 15; or

DoC 19.3: Information about the type and amount of SCM in the cement, and calculations showing the portland cement is reduced by 30% (by mass) in the product compared to the reference case (see Table 1); or

Table 1. Reference case portland cement contents for use in establishing portland cement reductions.

Concrete Strength (MPa)	Reference case portland cement content (kg/m^3)
20	280
25	310
32	360
40	440
50	550
65	550
80	610
100	660

DoC 19.4: For products based on alternative cement: Information on the type of cement in the product accompanied by an EPD or LCA. The LCA must be generated in accordance with internationally applicable LCA techniques specified in ISO 14044:2006 (Environmental Management – Life Cycle Assessment – Requirements and Guideline) and independently peer reviewed in accordance with ISO 14044. The EPD must be issued in conformance with ISO 14025 or EN15804, be independently assessed and must be based on a cradle-to-gate scope (as a minimum).

[1] This is intended as a first step for geopolymers (and other products with alternative cement chemistries) to disclose their other environmental impacts (i.e. other than global warming potential impacts) as research is still not conclusive and this information will add to the body of research while in the meantime encouraging a low carbon material/product.

7.3 Aggregates

Criterion 20: At least 40% of (virgin) coarse aggregate in the concrete shall be replaced by recycled aggregate or other alternative materials (e.g. reused by-products); or

At least 25% of (virgin) fine aggregate (sand) in the concrete shall be manufactured sand or other alternative materials; or

Coarse and/or fine aggregates used in the concrete are certified under GECA's Recycled Products standard.

The use of alternative materials should not increase the use of general-purpose cement by over 5 kg/m^3 of concrete. Alternative materials include, but are not limited to:

- washed copper slag
- blast furnace slag
- recycled concrete aggregate
- granulated blast furnace slag
- recycled concrete and masonry
- fly ash
- steel furnace slag
- furnace bottom ash
- coal washery reject
- reclaimed aggregate
- reclaimed asphalt pavement
- glass cullet
- scrap tyres
- used foundry sand or spent foundry sand.

Demonstration of Conformance

DoC 20.1: Information on type, amount and source of material used to replace virgin aggregate materials; or

DoC 20.2: GECA certificate for the aggregates used in the concrete.

7.4 Mix Water

Criterion 21: Where the concrete is mixed by the manufacturer in a batch plant or during transportation, 50% of the mixing water shall be reclaimed (e.g. reused water or brine) or captured water.

Demonstration of Conformance

DoC 21.1: Calculations showing overall reclaimed or recaptured water used in mix water.

7.5 Manufacturing Process

Concrete manufacturing processes use energy and water, generate waste, and may cause emissions of pollutants. Concrete is produced by blending precise amounts of cement, aggregates, chemical additives and water. This process takes place in a concrete batch plant. Concrete mixing trucks then transport already-mixed concrete to its destination or the truck's mixing can be performed as it is travelling to the site. Although each of the concrete constituents has its own environmental impact, the overall impact of concrete is significantly influenced by the cement and aggregates industry. However, depending on the type of concrete product, there may be additional significant impacts form the batch plant such as water usage and emission, and local pollution (noise, dust).

7.6 Environmental Management Systems

An Environmental Management System (EMS) integrates procedures and processes for training of personnel, monitoring and reporting of environmental performance information to stakeholders of an organisation. The EMS aims to identify and address significant environmental impacts of the manufacturing operations.

Criterion 22: The applicant / manufacturer shall have an Environmental Management System in place that is in accordance with ISO 14001-2015. The environmental aspects including but not limited to the following should be among the ones addressed by the EMS:

- Emissions to air (including but not limited to: SO_2, dust/PM)
- Releases to water and land
- Waste management (waste and by-products)
- Storage and handling of hazardous raw materials and dangerous goods
- Noise management

Demonstration of Conformance

DoC 22.1: Documentation showing an Environmental Management System (in accordance with ISO 14001:2015) is in place which addresses the above-mentioned environmental aspects supported by relevant documentation such as ISO14001 certificate, Aspects and Impacts Register, recent certification assessment report and any other information as per the discretion of the assurance provider.

8. DESIGN FOR ENVIRONMENT (CATEGORY B – CONCRETE)

8.1 Product Installation

Criterion 23: It shall be shown that some initiative is taken towards reducing the impact of the product's installation by:

- Having a scheme to take back off-cuts and waste from installation; and
- Providing good practice guidelines to designer, constructors and other users that address:
  - Efficient installation

- Waste minimisation during installation
- Water addition (if applicable)
- Any take-back scheme in place

Demonstration of Conformance

DoC 23.1: Description and proof of scheme to take back off-cuts; and copy of any guidelines and/or information provided to user.

8.2 Recyclability

Criterion 24: Some initiative shall be taken towards reducing the impact of the product's usage and/or end-of-life by showing that:

- The product is recyclable at the end of its life/ elements that may prevent recycling have been avoided; or
- Information is provided to the user on recycling of the product (e.g. possible options for recycling, with names of recycling facilities where possible).

Demonstration of Conformance

DoC 24.1: Description and proof of recyclability of product; or information provided to the user on recycling of the product (e.g. possible options for recycling, with names of recycling facilities where possible.

9. ENVIRONMENTAL CLAIMS (CATEGORY B – CONCRETE)

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

9.1 Public Claims

Criterion 25: The applicant's public claims regarding the product's environmental performance beyond this standard's scope (other than GECA certified content) shall be independently verified as compliant with ISO 14021: Environmental Labels and Declarations – 'Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements. Also refer to the GECA Rules for the Use of the Good Environmental Choice Australia Mark.

Demonstration of Conformance

DoC 25.1: Report or statement from the applicant listing all public environmental claims regarding the product by the applicant, demonstrating compliance to ISO14021; and

DoC 25.2: A signed declaration from an Executive Director of the applicant company stating that any environmental claims made by the company regarding the product in the future will be verified using ISO 14021 and/or the GECA certification

Category C – Concrete Products

10. MATERIAL REQUIREMENTS (CATEGORY C – CONCRETE PRODUCTS)

This section's criteria address impacts that may occur over the life cycle of a product that can be avoided or mitigated during the design phase of product development. Unless otherwise stated, this section's requirements apply to each type of material contained in the finished product regardless of weight.

10.1 Raw Material Sourcing

Most raw materials needed for the production of cement and for the mixing of concrete, require some form of mining or quarrying. These activities are linked to an extended land-use and exploitation of natural resources (excavations, quarrying, ground water and lime stone) which can create environmental and social issues. This can include threatening of biodiversity and ecosystems in adjacent areas, erosion in coastal and river banks, or pollution of waterways through increased turbidity and suspended solids. Local impacts may also include noise and dust pollution, and landscape damage which may be considered significant by the local community.

10.2 Cement

Criterion 26: The cement used in the concrete shall be GECA certified OR fulfil the requirements listed in Criterion 19;

Demonstration of Conformance

DoC 26.1: GECA certificate for the cement used in the concrete; or

DoC 26.2: See DoC in Criterion 19.

10.3 Aggregates

Criterion 27: Any aggregates used shall fulfil the requirements of Criterion 20.

Demonstration of Conformance

DoC 27.1: See DoC in Criterion 20.

10.4 Mix Water

Criterion 28: 50% of the mixing water used in the manufacture of the concrete product shall be reclaimed (e.g. reused water or brine) or captured water.

Demonstration of Conformance

DoC 28.1: Calculations showing overall reclaimed or recaptured water used in mix water.

10.5 Additional Materials

Criterion 29: Steel: All the steel in the product shall be sourced from a steel maker that has a currently valid and certified ISO 14001 Environmental Management System in place and is a member of the World Steel Association's (WSA) Climate Action Program (CPA).

Demonstration of Conformance

DoC 29.1: Signed declaration of the steel manufacturer supported by relevant documentation (ISO certification and CAP certificate from the WSA).

Criterion 30: Timber (applies to non-recycled timber components): All virgin wood fibre shall be covered by valid sustainable forest management and/or chain of custody certificates issued by an independent third party certification scheme such as FSC, PEFC or equivalent.

Where certification schemes allow mixing of certified material, recycled materials and uncertified material, the proportion of uncertified material shall not exceed 50%. Such uncertified material shall be covered by a verification system which ensures that it is legally sourced and meets any other requirement of the certification scheme with respect to uncertified material. The certification bodies issuing forest and/or chain of custody certificates shall be accredited/recognised by that certification scheme.

Demonstration of Conformance

DoC 30.1: Signed declaration of compliance, supported by relevant certificates or other evidence of forest management certification and/or chain of custody certification (to confirm the required amount of virgin fibre that is used in the product is from a certified sustainably managed source); and relevant certificates or other evidence to confirm that the wood originates from legal sources.

Criterion 31: Other materials used in the product (e.g. plastic fibres) shall be manufactured using at least 90% recycled materials and should not prevent recycling of the concrete at the end of its life.

Demonstration of Conformance

DoC 31.1: Signed declaration of compliance, supported by relevant documentation and evidence of recycled content.

10.6 Manufacturing Process

Concrete product manufacturing processes use energy and water, generate waste, and can cause emissions of a range of pollutants. Depending on the concrete product, the manufacturing process may be very similar to concrete manufacturing or may require other manufacturing facilities and processes. Similar to concrete manufacturing, the impact of concrete products is significantly influenced by the amount of cement used. In addition to the impact from cement, the manufacturing process may produce waste and emissions to air and water.

10.7 Environmental Management Systems

An Environmental Management System (EMS) integrates procedures and processes for training of personnel, monitoring and reporting of environmental performance information to stakeholders of an organisation. The EMS aims to identify and address significant environmental impacts of the manufacturing operations.

Criterion 32: The applicant / manufacturer shall have an Environmental Management System in place that is in accordance with ISO 14001-2015. The environmental aspects including but not limited to the following should be among the ones addressed by the EMS:

- Emissions to air (including but not limited to: SO_2, dust/PM)
- Releases to water and land
- Waste management (waste and by-products)
- Storage and handling of hazardous raw materials and dangerous goods
- Noise management

Demonstration of Conformance

DoC 32.1: Documentation showing an Environmental Management System (in accordance with ISO 14001:2015) is in place which addresses the above mentioned environmental aspects supported by relevant documentation such as ISO14001 certificate, Aspects and Impacts Register, recent certification assessment report and any other information as per the discretion of the assurance provider.

11. DESIGN FOR ENVIRONMENT (CATEGORY C – CONCRETE PRODUCTS)

11.1 Product Installation

Criterion 33: It shall be shown that some initiative is taken towards reducing the impact from the product's installation by:

- Having a scheme to take back off-cuts and waste from installation; and
- Providing good practice guidelines provided to designer, constructors and other users that address:
  - Efficient Installation
  - Waste minimisation during installation
  - Water addition (if applicable)
  - Any take back scheme in place

Demonstration of Conformance

DoC 33.1: Description and proof of scheme to take back off-cuts; and copy of any guidelines and/or information provided to user.

11.2 Recyclability

Criterion 34: Some initiative shall be taken towards reducing the impact from the product's end-of life phase by showing that:

- The product is recyclable at the end of its life/ elements that may prevent recycling have been avoided; or
- Information is provided to the user on recycling of the product (e.g. possible options for recycling, with names of recycling facilities where possible).

Demonstration of Conformance

DoC 34.1: Description and proof of initiatives taken to reduce impact from usage and/or end of life phase of the product.

11.3 Packaging

Criterion 35: Packaging shall comply with at least one of the following:

- Each material constituting >20% by weight of the total primary and secondary packaging used, must contain at least 50% recycled content by weight;
- Each material constituting >20% by weight of the total primary and secondary packaging used, must be derived from plant-based materials (e.g. PLA plastics); or
- Each separable item constituting >20% by weight of the total primary and secondary packaging, must be recyclable in Australia. This may be demonstrated using the Australian Packaging Covenant's Packaging Recyclability Evaluation Portal (PREP).

Paper and cardboard packaging must be either certified under recognised forest certification scheme (e.g. FSC or PEFC) or contain at least 30% recycled content by weight.

Material used for the transport of products (tertiary packaging) and whose disposal is not the responsibility of the end-consumer may be excepted from the above requirements if they are re-used by the applicant, or are recyclable in specialist recycling facilities.

Demonstration of Conformance

DoC 35.1: Details of materials used as packaging, including information on the input of recycled and virgin materials reported by weight if applicable. The recycled content can be averaged over a 12-month period to find the amount or range of recycled content; and / or

DoC 35.2: Evidence of recyclability or copy of PREP Assessment Report; and/or

DoC 35.3: Evidence of certification under relevant forest certification scheme; and/or

DoC 35.4: Details of re-use programs for transport materials within the applicant company.

12. ENVIRONMENTAL CLAIMS (CATEGORY C – CONCRETE PRODUCTS)

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

12.1 Public Claims

Criterion 36: The applicant's public claims regarding the product's environmental performance beyond this standard's scope (other than GECA certified content) shall be independently verified as compliant with ISO 14021: Environmental Labels and Declarations – 'Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements. Also refer to the GECA Rules for the Use of the Good Environmental Choice Australia Mark.

Demonstration of Conformance

DoC 36.1: Report or statement from the applicant listing all public environmental claims regarding the product by the applicant, demonstrating compliance to ISO14021; and

DoC 36.2: A signed declaration from an Executive Director of the applicant company stating that any environmental claims made by the company regarding the product in the future will be verified using ISO 14021 and/or the GECA certification

SOCIAL CRITERIA

13. SOCIAL AND LEGAL COMPLIANCE

This section addresses compliance with the legal and social attributes of the producer and the applicant company; it also engages with the supply chain to ensure human and labour rights are upheld. These criteria are common to all GECA standards. The social aspect partially addresses the third dimension of sustainability - society. This concept was first understood by producers under the name "Corporate Social Responsibility" (CSR). In this standard, social criteria include laws for equal opportunity, safety and protection of workers, and compliance with human and labour rights. GECA certification cannot be given to any company that illegally exploits workers or their families.

Note: In cases where there is a conflict between GECA requirements in this section and relevant legislation or regulations introduced by governments and agencies, national legislation overrides state legislation and state legislation overrides regulations and standards issued by GECA. Where the GECA requirements go further than the applicable legislation, the producer and/or applicant company shall comply with applicable law while trying as far as possible to act in accordance with the spirit of the GECA requirements.

Category A, B and C

13.1 Environmental Legislation

Criterion 37: The producer of the product and applicant company shall as per law comply with relevant environmental legislation and government orders at the Local, State, and Commonwealth levels (if these have been issued). Where a producer is from an overseas jurisdiction, it is that jurisdiction's environmental regulations that apply. Where the producer has been found guilty of a breach of any environmental legislation or permit(s) within the last two years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 37.1: Signed declaration from an Executive Officer of the organisation stating compliance with applicable environmental legislation and government orders;

DoC 37.2: Signed declaration disclosing any breaches of environmental legislation or permits and the date of the breach. Applicant shall:

DoC 37.3: Provide a Legal Register listing applicable environmental legislation (including applicable Regulations under that legislation) in, or as an attachment to the above two declarations (DoC 37.1 and DoC 37.2). The Legal Register shall:

- For each applicable Act and Regulation listed, state whether the manufacturer and applicant company comply; or have a certified ISO 14001, Eco-Management and Audit Scheme (EMAS) or equivalent environmental management system in place; and;
- List relevant permits granted by the EPA or an equivalent national, state or local body;

DoC 37.4: Evidence of corrective action following identification of a breach of environmental legislation, if applicable.

Note:

In this criterion, 'Regulation' means an entire regulatory instrument (for example, the Environmentally Hazardous Chemicals Regulation 2008) and not the individual sections, provisions or clauses of a regulatory instrument.

13.2 Minimum entitlement including wages

Criterion 38: All employees and contractors must receive at least the applicable minimum wage including penalty rates, allowances and superannuation and be provided with all other minimum entitlements including in relation to hours, leave and termination. All employees shall be covered by a Federal or State award, a certified industrial agreement or registered agreement as determined by the Australian Government Workplace Authority or a State or Territory Workplace Relations Agency, or an agreement that complies with Fair Work Act 2009 section 61 – National Employment Standards. A manufacturer/applicant company shall demonstrate compliance to the following requirements as taken from the ILO Convention: Convention 100 – Equal Remuneration Convention.

Where a producer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply.

Where a producer/applicant company or a third party has identified a breach of applicable legislation, including underpayment of wages within the last two years, there shall be evidence of corrective action.

Demonstration of Conformance

DoC 38.1: Signed declaration from an Executive Officer of the organisation confirming compliance with all minimum entitlements including wages; and

DoC 38.2: List of applicable awards, certified industrial agreements or registered agreements and the number of workers to which they apply, and number of workers not covered by such; and

DoC 38.3: Text or template of a typical workplace agreement offered to employees of the company; and sample payslips; and

DoC 38.4: Evidence of corrective action following identification of a breach of legislation, if applicable.

13.3 Workplace Health and Safety

Criterion 39: A manufacturer/ applicant company shall demonstrate compliance to the following requirements as taken from the ILO Conventions:

a) Convention 155 – Occupational Safety and Health and its accompanying Recommendation No. 164;

b) Convention 161 – Occupational Health Services and its accompanying Recommendation No. 171

And general compliance with applicable State or Territory Legislation concerning Occupational, Health and Safety (OHS) / Work Health and Safety (WHS) and/or the Commonwealth Safety, Rehabilitation and Compensation Act 1988, where applicable. Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a producer/applicant company has been found guilty of a breach of relevant legislation within the last 2 years, there shall be evidence of corrective action.

Demonstration of Conformance

DoC 39.1: Signed declaration from an Executive Officer of the organisation stating compliance to workplace legislation and government orders, as well as declaration of any breaches of legislation and the date of the breach. Applicants shall list all applicable legislation in, or as an attachment to, this declaration;

DoC 39.2: Copy of the company Occupational / Workplace H&S policy and procedures;

DoC 39.3: Copy of employee induction records, training records, meeting records and risk assessments; or current ISO 45001:2018 (or former OHSAS 18001), AS/NZS 4801 or equivalent certification; or third-party certification stating compliance to Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011 or equivalent jurisdiction specific legislation; and

DoC 39.4: Evidence of corrective action following a breach of legislation, if applicable; and

DoC 39.5: WHS incidents register

13.4 Equal Opportunity

Criterion 40: The manufacturer/applicant company shall demonstrate general compliance with the requirements of the Racial Discrimination Act 1975, Sex Discrimination Act 1984, Disability Discrimination Act 1992, Equal Opportunity for Women in the Workplace Act 1999, and complementary State Legislation. The manufacturer cannot be in the list of 'named' or non-compliant employers under the Workplace Gender Equality Act 2012. Where a manufacturer /applicant company is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a manufacturer has been found guilty of a breach of relevant legislation within the last two years, there shall be evidence of corrective action.

Demonstration of Conformance

DoC 40.1: Signed declaration from an Executive Officer of the organisation stating compliance with above legislation;

DoC 40.2: Copy of relevant company policies and procedures;

DoC 40.3: Evidence of corrective action following a breach of legislation, if applicable; and

DoC 40.4: The assessor will verify that the company does not appear on the following list: Non-compliant list | WGEA

13.5 Lawful Conduct

Criterion 41: The manufacturer/applicant company shall not have been convicted of any breach of criminal law, any breach of the Competition and Consumer Act 2010 or the Corporations Act 2001, including prosecution or de-listing by the Australian Stock Exchange (ASX or international equivalent). Where a manufacturer is from an overseas jurisdiction, it is that jurisdiction's equivalent regulations that apply. Where a producer has been found guilty of a breach of relevant legislation within the last two years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 41.1: Signed declaration from an Executive Officer of the organisation stating compliance with above legislation; and

DoC 41.2: Evidence of corrective action following a guilty verdict, if applicable.

13.6 Modern Slavery

Criterion 42: The applicant company shall promote the elimination of Modern Slavery through collaboration with their supply chain, in accordance with the Australian Commonwealth Modern Slavery Act 2018 or NSW Modern Slavery Act 2018 and the following requirements as taken from the ILO Conventions:

a) Conventions 29 and 105 – Elimination of Forced and Compulsory Labour; and

b) Convention 182 – Worst Forms of Child Labour

Where an applicant 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.

This criterion shall be valid for applicant companies of any size and is not restricted to any annual

revenue threshold.

Demonstration of Conformance

DoC 42.1: A copy of the published Modern Slavery Statement from within the previous 12 months. The Modern Slavery Statement shall comply with the seven mandatory criteria of the Act as below:

a) Identify the reporting entity

b) Describe reporting entity's structure, operations and supply chains

c) Describe the risks of modern slavery practices in the operations and supply chains of the reporting entity and any entities it owns or controls

d) Describe the actions taken by the reporting entity and any entities it owns or controls to assess and address these risks, including due diligence and remediation processes

e) Describe how the reporting entity assesses the effectiveness of these actions

f) Describe the process of consultation with any entities the reporting entity owns or controls

g) In addition to the modern slavery report, some supporting documents may be asked to be cited at the main site of manufacturing during the on-site assessment:

If a copy of the Modern Slavery Statement is unable to be presented, a rationale will be required. Also in cases where supportive documentation is unavailable at the time of certification, a grace period of three years or one certification period may be granted (no more than one certification period will be given).

The documents may include but not limited to the following documentation to support the modern slavery report:

h) Employment records

i) List of contractors

j) Leave entitlements policy

k) Any relevant Human Resources policy

l) Payslips/ wage scales/ remuneration policy

m) Minimum age of employment policy

n) Any other relevant information

Where an organisation has not previously reported on the Australian Commonwealth Modern Slavery Act 2018 or NSW Modern Slavery Act 2018 and does not meet the reporting threshold of the NSW or Commonwealth legislation, the organisation shall publish a Modern Slavery Statement within three years of certification on a voluntary basis. A grace period of up to one cycle of certification may be granted depending on the company's reporting period.

For more information about modern slavery and the *Modern Slavery Act 2018*., please see News and Resources (modernslaveryregister.gov.au).

13.7 Human Rights including Labour Rights

Criterion 43: The manufacturer/applicant company shall respect internationally recognised human rights, including labour rights, including the rights set out in:

- Universal Declaration of Human Rights
- International Covenant on Civil and Political Rights
- International Covenant on Economic, Social and Cultural Rights
- ILO Declaration on Fundamental Principles and Rights at Work

In particular, this includes the following aspects and ILO conventions: No child/forced/bonded labour (ILO 29 and 105), Minimum age convention (ILO 138), Worst forms of child labour (ILO182), Health and safety procedures and training (155, 161 and 171), Right of freedom of association (ILO 87 and 98), Non-discrimination (ILO 100 and 111), Discipline/harassment and grievance procedures, Fair working hours and compensation, Anti-corruption and bribery.

The applicant company shall also take steps to ensure human rights are respected in its supply chain.

Where an applicant has been found to breach this criterion in the past two years, there must be evidence of corrective action.

Demonstration of Conformance

DoC 43.1: The manufacturer/applicant company shall provide evidence of its commitments to human rights including labour rights (e.g. policies, published reports containing disclosure in relation to human rights (e.g. sustainability report) commitments to international initiatives such as the UN Global Compact); and

DoC 43.2: The manufacturer/applicant shall provide a map of at least one tier of its supply chain; and

DoC 43.3: Evidence of implementation of a Supplier 'Code of Conduct'; Code of conduct to include Human and Labour Rights, Health and Safety of workers; and

DoC 43.4: Evidence of assessment of suppliers in relation to human rights and recommendations for improvements in their supply chain; and

DoC 43.5: Evidence of ISO20400 implementation; or

- Evidence of valid SA8000® Standard , or other equivalent certification; or

- Evidence of being a signatory to the UN Global Compact; or
- SEDEX membership ; or
- GRI 400 Report (Global Report Initiative); and

If any of DoCs 37.5 cannot be provided, manufacturer/ applicant shall provide:

DoC 43.6: Evidence of commitment to achieve SA 8000 certification within one year; or

DoC 43.7: Evidence of becoming a signatory to the UN Global Compact within six months;

and

DoC 43.8: Evidence of corrective action, if applicable.

GECA acknowledges that this is an emerging area of compliance and conformance. Therefore, alternative certifications, standards, ethical membership organisations or compliance reporting may be recognised as demonstration of conformance where an exception is granted by the GECA Board.

EVIDENCE OF CONFORMANCE

Demonstration of Conformance (DoC)

This section lists the sources of evidence to be considered during an assessment to establish conformance against GECA's standards. This list is provided to guide the applicant through the standard's requirements and facilitate the preparation of an application. The DoC requirements are specified along with each criterion in the standard define specific sources of evidence acceptable to GECA. In cases where criteria offer several DoC requirements, it is the sole decision of the appointed assurance provider to choose the appropriate option throughout the preliminary stage of the assessment. If none of the recommended DoC requirements stipulated for a particular criterion in the standard is applicable for a product under assessment, then the appointed assurance provider may choose an alternative but equivalent source of evidence. In cases where alternative sources of evidence have been accepted for the verification of the product, the assurance provider will inform GECA by providing a report on the details as far as appropriate. GECA will use this information to continuously improve the DoC requirements stipulated by that standard.

All laboratory testing and analysis shall be carried out by a NATA accredited laboratory. For tests carried out overseas, all analysis shall be carried out by a reputable lab accredited by an ILAC.

The applicant/manufacturer shall have processes in place to ensure on-going compliance with the criteria in this standard; for example in relation to hazardous substances, having a process in place for completing a checklist (signed and dated by the authorised person) that lists all the substances and requirements in that section prior to using in/with the GECA product/s. The process may be carried out by relevant supplier/s of relevant material/s if there is no in-house capacity within the organisation being assessed to carry out this process. Documented information about any communication in regards to this process (i.e. between applicant and suppliers) shall be maintained.

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

APPENDIX A

APPLICATION CHECKLIST

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

Criterion Number	**Criterion Content**	**Demonstration of Conformance** See standard body for details	**Evidence Attached**	**Complies Y/ N or NA**
All Categories (A,B and C)				
Category Scope (all categories)				
Criterion 1	Range of products	Description of the product(s) or product range (as applied to the scope of this standard); list including the location of plants, manufacturing/assembly sites and the origin of the virgin and/or alternative raw materials.	☐	
FIT FOR PURPOSE				
Category A – Cement				
Criterion 2	Applicable standards and demonstrated performance	Documentation identifying applicable standards or performance requirements, and test reports and other relevant documentation to demonstrate that standards and requirements are met and a QMS is implemented.	☐	
Category B – Concrete				
Criterion 3	Applicable standards and demonstrated performance	Documentation identifying applicable standards or performance requirements, and test reports and other relevant documentation to demonstrate that standards and requirements are met and a QMS is implemented.	☐	
Category C – Concrete Products				
Criterion 4	Applicable standards and demonstrated performance	Documentation identifying applicable standards or performance requirements, and test reports and other relevant documentation to demonstrate that standards and requirements are met and a QMS is implemented.	☐	
HEALTH CRITERIA				

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Category A – Cement				
Hazardous Materials				
Criterion 5	Banned substances - No use of substances acutely toxic, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the environment.	Ingredients list for the product and Safety Data Sheet (SDS) for each ingredient, identification of potential contamination sources. If a substance is present as contaminant, applicable safety standards and procedures that are met have to be detailed.	☐	
		Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.	☐	
Category B – Concrete				
Hazardous Materials				
Criterion 6	Banned substances - No use of substances acutely toxic, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the environment.	Ingredients list for the product and SDS for each ingredient; and	☐	
		Third party laboratory test reports for a leaching test (TLCP) to test for heavy metals and organic compounds of environmental concern	☐	
		Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.	☐	
Criterion 7	Identification and rejection of asbestos	Copy of procedure in place and proof of implementation of the procedure (e.g. checklists, testing procedures and results).	☐	
Criterion 8	Admixtures	SDSs for all admixtures uses accompanied by documentation showing that requirements of AS 1478 are met.	☐	

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Criterion 9	Colours	Ingredients list for the product and SDS for each ingredient.	☐	
Category C – Concrete Products				
Hazardous Materials				
Criterion 10	Banned substances - no use of substances acutely toxic, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the environment.	Ingredients list for the product and SDS for each ingredient; and	☐	
		Third party laboratory test reports for a leaching test (TLCP) to test for heavy metals and organic compounds of environmental concern	☐	
		Where an exception is claimed for a substance that is added for a purpose, a signed declaration from an Executive Director of the applicant company stating the purpose for which the given substance is necessary; documentation clearly outlining how each chemical is used, managed and stored; and evidence that human exposure or environmental contamination is prevented.	☐	
Criterion 11	Identification and rejection of asbestos	Copy of procedure in place and proof of implementation of the procedure (e.g. checklists, testing procedures and results)	☐	
Criterion 12	Admixtures	SDSs for all admixtures uses accompanied by documentation showing that requirements of AS 1478 are met.	☐	
Criterion 13	Colours	Ingredients list for the product and SDS for each ingredient.	☐	
ENVIRONMENTAL CRITERIA				
Category A – Cement				
Raw Materials Sourcing				
Criterion 14	Sustainable sourcing of raw materials. Requirements for virgin mined and	Information about the virgin material procurement program and records of the supplier, nature and geographical source of all virgin mined material inputs; and	☐	

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
	quarried materials	Certificates or other evidence of implemented EMS; documented mine rehabilitation program, and community engagement or cultural heritage plans.	☐	
Manufacturing Process				
Criterion 15	Cement manufacturing. Reduced cement content (SCMs); or reduced CO_2 emissions.	SCM: Type and amount of SCM in the cement (at least 30%); or	☐	
		CO_2 emissions: Calculation of CO_2 emissions (using WBCSD-CSI methodology) (have to be lower than 605 kg CO_2/tonne of cement); or	☐	
Criterion 16	Environmental Management System (addressing certain areas)	Documentation showing an EMS (in accordance with ISO 14001:2015) (addressing the required environmental aspects) supported by info on policies and procedures in place and evidence (e.g. photos, filled registers, etc.) of implementation.	☐	
Design for Environment				
Criterion 17	Packaging - Requirements on plastic and paper packaging	Details of materials used as packaging, including information on the input of recycled and virgin materials reported by weight if applicable. The recycled content can be averaged over a 12 month period to find the amount or range of recycled content; and / or	☐	
		Evidence of recyclability or copy of PREP Assessment Report; and/or	☐	
		Evidence of certification under relevant forest certification scheme; and/or	☐	
		Details of re-use programs for transport materials within the applicant company.	☐	
Environmental Claims				
Criterion 18	Public claims made by applicant	Statement of conformance signed by EO, with report showing compliance to ISO 14021.	☐	
Category B – Concrete				

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Raw Materials Sourcing				
Criterion 19	Cement that is GECA certified or fulfils requirements of Criterion 15; OR has reduced portland cement content; OR is based on alternative cement chemistry.	GECA certificate for the cement used in the concrete; or	☐	
		DoC as in Criterion 15.	☐	
		Information about the type and amount of SCM in the cement, and calculations showing the portland cement is reduced by 30% (by mass) in the product compared to the reference case	☐	
		For products based on alternative cement: Information on the type of cement in the product accompanied by an EPD or LCA	☐	
Criterion 20	Aggregate sourcing – replacement of virgin materials with recycled or alternative materials (40% for coarse and 25% for fine aggregates)	Information on type, amount and source of material used to replace virgin aggregate materials; or	☐	
		Relevant GECA certificate	☐	
Criterion 21	Mix water	Calculations showing overall reclaimed or recaptured water used in mix water.	☐	
Manufacturing Process				
Criterion 22	Environmental Management System (addressing certain areas)	Documentation showing an EMS (in accordance with ISO 14001:2015) (addressing the required environmental aspects) supported by info on policies and procedures in place and evidence (e.g. photos, filled registers, etc.) of implementation.	☐	
Design for Environment				
Criterion 23	Product installation	Description and proof of cut-off take back scheme; and	☐	
		Copy of installation guidelines provided to user	☐	

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Criterion 24	Recyclability	Description and proof of : recyclability of product; or information provided to the user on recycling of the product (e.g. possible options for recycling, with names of recycling facilities where possible	☐	
Environmental Claims				
Criterion 25	Public claims made by applicant	Statement of conformance signed by EO, with report showing compliance to ISO 14021.	☐	
Category C – Concrete Products (Criterion 26 – 36)				
Raw Materials Sourcing				
Criterion 26	Cement that is GECA certified or fulfils requirements of Criterion 19	GECA certificate for the cement used in the concrete; or DoC in Criterion 19.	☐	
Criterion 27	Aggregate sourcing – replacement of virgin materials with recycled or alternative materials (40% for coarse and 25% for fine aggregates)	Information on type, amount and source of material used to replace virgin aggregate materials.	☐	
Criterion 28	Mix water	Calculations showing overall reclaimed or recaptured water used in mix water.	☐	
Criterion 29	Additional materials: steel	Signed declaration of the steel manufacturer supported by relevant documentation (ISO certification and CAP certificate from the WSA; evidence of 80% minimum recycled content.).	☐	
Criterion 30	Additional materials: sustainable forest management for virgin timber	Signed declaration of compliance, supported by relevant certificates or other evidence of forest management certification and/or chain of custody certification	☐	
Criterion 31	Other additional materials	Signed declaration of compliance, supported by relevant documentation and evidence of 95% recycled content.	☐	
Manufacturing Process				

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
Criterion 32	Environmental Management System (addressing certain areas)	Documentation showing an EMS (in accordance with ISO 14001:2015) (addressing the required environmental aspects) supported by info on policies and procedures in place and evidence (e.g. photos, filled registers, etc.) of implementation.	☐	
Design for Environment				
Criterion 33	Product installation	Description and proof of cut-off take back scheme; and	☐	
		Copy of installation guidelines provided to user	☐	
Criterion 34	Recyclability	Description and proof of: recyclability of product; or information provided to the user on recycling of the product (e.g. possible options for recycling, with names of recycling facilities where possible	☐	
Criterion 35	Packaging - Requirements on plastic and paper packaging	Details of materials used as packaging, including information on the input of recycled and virgin materials reported by weight if applicable. The recycled content can be averaged over a 12 month period to find the amount or range of recycled content; and / or	☐	
		Evidence of recyclability or copy of PREP Assessment Report; and/or	☐	
		Evidence of certification under relevant forest certification scheme; and/or	☐	
Environmental Claims				
Criterion 36	Public claims made by applicant	Statement of conformance signed by EO, with report showing compliance to ISO 14021.	☐	
SOCIAL CRITERIA				
Categories A, B and C				
Criterion 37	Environmental legislation	Signed declaration confirming conformance to the criterion	☐	

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
		Signed declaration disclosing any breaches of environmental legislation	☐	
		Legal register listing applicable environmental legislation (including applicable Regulations under that legislation) in, or as an attachment to the above declaration (35.1 and 35.2) • For each applicable Act and Regulation listed, state whether the manufacturer and applicant company comply; • or have a certified ISO 14001, Eco-Management and Audit Scheme (EMAS) or equivalent environmental management	☐	
		List of permits granted by EPA.	☐	
		Evidence of corrective action (if applicable).	☐	
Criterion 38	Minimum entitlement including wages	Signed declaration confirming conformance to the criterion and	☐	
		List of applicable awards, industrial and registered agreements and number of workers who are covered and not covered.	☐	
		Text or template of the typical workplace agreement offered to employees, and sample payslips	☐	
		Evidence of corrective action	☐	
Criterion 39	Work health and safety	Signed declaration confirming conformance to the criterion and	☐	
		OHS/WHS policies and procedures and	☐	
		WHS Incidents register	☐	
		Evidence of corrective action (if applicable).	☐	
Criterion 40	Equal opportunity	Statement of conformance signed by EO.	☐	
		Copy of relevant policies and procedures.	☐	
		Evidence of corrective action (if applicable).	☐	

Criterion Number	Criterion Content	Demonstration of Conformance See standard body for details	Evidence Attached	Complies Y/ N or NA
		Does not appear on list of non-compliant organisations.	☐	
Criterion 41	Lawful conduct	Statement of conformance signed by EO.	☐	
		Evidence of corrective action (if applicable).	☐	
Criterion 42	Modern slavery	Copy of the published Modern Slavery Statement from within the previous 12 months.	☐	
Criterion 43	Human and labour rights	Evidence of commitments to human rights including labour rights	☐	
		Map of at least one tier of their supply chain; and	☐	
		Evidence of implementation of a Supplier 'Code of Conduct', and	☐	
		Evidence of assessment of suppliers in relation to human rights and recommendations for improvements in their supply chain	☐	
		Evidence of ISO20400 implementation; or Evidence of valid SA8000® Standard certification, or other equivalent certification; or Evidence of becoming a signatory to the UN Global Compact; or SEDEX Membership, or GRI400 Report	☐	
		Evidence of commitment to achieve SA8000® Standard certification within one year	☐	
		Evidence of becoming a signatory to the UN Global Compact within six months;	☐	
		Evidence of corrective action (if applicable).	☐	

Our vision is for a sustainable future for people and planet

GECA