

CONSTRUCTION INDUSTRY COUNCIL

CIC GREEN PRODUCT CERTIFICATION

Assessment Standard

Technical Requirements

Wall Covering



CIC GREEN
PRODUCT CERTIFICATION

(Version 2)

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WALL COVERING

Summary of Assessment Criteria

CORE CRITERIA

Criteria	Requirements	Verification	Points		Index														
			Basic	+Bonus															
Product Information	Provide following information with delivered products or made accessible to public: <ul style="list-style-type: none"> • Basic product specifications • Country of origin • Installation method • Instructions for correct use and storage to maximise the lifetime of the product • Methods of cleaning application equipment • Possible toxicity or health hazards imposed by the chemical components 	Documentation including but not limited to product catalogue, technical datasheet, webpages	5	-	4.1.1														
RESOURCE																			
Material Optimisation	Raw Materials: Paper: <ul style="list-style-type: none"> • \geq 20% Recycled content • \geq 50% raw materials from sustainable sources Fabric/Plastic: <ul style="list-style-type: none"> • \geq 20% Recycled content 	Detailed report(s) of the recycled content or sustainable sources	15	-	4.3.1.1														
ENVIRONMENT																			
Human Toxicity and Ecosystem Impact	Heavy Metals: Product shall not contain the following organic compounds of environmental concern that exceed below limits:	Laboratory test report(s) and relevant product documentation	10	-	4.4.3.2														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Heavy Metal</th> <th style="text-align: left;">Limits (mg/kg)</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>< 25</td> </tr> <tr> <td>Barium</td> <td>< 500</td> </tr> <tr> <td>Cadmium</td> <td>< 25</td> </tr> <tr> <td>Chromium</td> <td>< 60</td> </tr> <tr> <td>Lead</td> <td>< 90</td> </tr> <tr> <td>Mercury</td> <td>< 20</td> </tr> </tbody> </table>					Heavy Metal	Limits (mg/kg)	Arsenic	< 25	Barium	< 500	Cadmium	< 25	Chromium	< 60	Lead	< 90	Mercury	< 20
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	Arsenic					< 25													
	Barium					< 500													
	Cadmium					< 25													
	Chromium					< 60													
Lead	< 90																		
Mercury	< 20																		
Volatile Organic Compounds (VOC)	Formaldehyde: The finished wall covering product shall not exceed emission limits on formaldehyde < 0.05 ppm.	Laboratory test report(s) and relevant product documentation	5	-	4.4.4.1														

Criteria	Requirements	Verification	Points		Index
			Basic	+Bonus	
	VOC Content: The finished wall covering product shall not exceed emission limits on Total volatile organic compounds (VOCs) < 0.5 mg/m ³ .	Laboratory test report(s)	5	-	4.4.4.2
PERFORMANCE					
Product Life	Serviceability: Carry out at least FOUR of the testing items to demonstrate quality, durability and performance properties of the product. Relevant tests include, but are not limited to: <ul style="list-style-type: none"> • Abrasion Resistance • Washability • Stain Resistance • Colourfastness • Fire Resistance • Impact Resistance • Tensile • Moisture Resistance • Mildew and Fungal Resistance • Dimensional Stability 	Laboratory test report(s) for all relevant quality and performance tests	10	-	4.5.1.1
		Subtotal:	50	-	

NON-CORE CRITERIA

Criteria	Requirements	Verification	Points	Index
			+Bonus	
CARBON				
CFP Quantification	Provide a 3 rd party endorsed life cycle assessment report with the carbon footprint of products (CFP), covering at least A1 to A3 OR provide an Environmental Product Declaration (EPD).	CFP quantification report OR Environmental Product Declaration (EPD)	+10	4.2.1
RESOURCE				
Circularity	Recyclability: Developed a recycling plan for the product and declared options for reuse, recycling, recovery and disposal.	Documentation on recycling plan	+5	4.3.2.1
	Packaging Requirement: The packaging materials shall not contain halogenated plastics; <i>OR</i> Shall be comprised of 100% recycled materials, readily recyclable materials or decomposable materials; <i>OR</i> Shall not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent or significantly limit recycling.	Documentation on packaging materials used	+5	4.3.2.2
Waste Management	Waste Management Plan: Implement effective waste management plan detailing the policies, procedures and/or a waste management program covering manufacturing operations.	Waste management plan	+5	4.3.3.1
Water Management	Option A: Water Consumption Reporting: Report both potable and non-potable water usage in the production process of the past year.	Water consumption report	+5/ +10	4.3.4.1
	Water Recycling Program: Develop and implement a water recycling program during the manufacturing process.	Documentation on water recycling		4.3.4.2
	Option B: Water Management System: Process valid certificates under ISO 14046: Water footprint Assessment.	ISO Certificate		4.3.4.3
Energy Management	Option A: Energy Management Plan: Implement effective energy management policies and procedures and/or an energy management programme.	Energy Management Plan	+5/ +10	4.3.5.1

Criteria	Requirements	Verification	Points	Index
			+Bonus	
	Option B: Energy Management System: Possess valid certificates under ISO 50001: Energy management systems – Requirements with guidance for use.	ISO 50001 Certificate issued by accredited certification body		4.3.5.2
ENVIRONMENT				
Environmental Management	Environmental Management System: Possess valid certificate under ISO 14001: Environmental management systems or EU Eco-Management and Audit Scheme (EMAS).	ISO 14001 or EMAS Certificate issued by accredited certification body	+5	4.4.1.1
Regional Product	Regional Manufactured Product: Products that are manufactured within 800km radius of HKSAR by road transportation; within a 1,600km radius by rail transportation; or within a 4,000km radius by sea transportation.	Location Map with distance between manufacturer and HKSAR	+5	4.4.2.1
Human Toxicity and Ecosystem Impact	<p>Hazardous Substances: The following substances in the product shall not exceed the below limits (% by weight of the product):</p> <ul style="list-style-type: none"> • Chlorofluorocarbons (CFCs): 0.1% • Chlorophenols: 20 µg/kg of fibre in textile materials • Extractable organic halogens (EOX): 3 mg/kg fibre in textile materials • Release of vinyl chloride monomer: 1 mg/kg. <p>AND The following substances shall not be added in the manufacturing process:</p> <ul style="list-style-type: none"> • Sodium hexafluorosilicate • N-(a-(1-nitroethyl)benzyl)-ethylene diamine • Mixture of tris-(hydroxymethyl)-nitromethane, 5-chloro-2-methyl-4- • Isothiazoline-3-on and 2-methyl-4-isothiazoline-3-on • Tetramethylthiuram disulphide • Chemicals for bleaching including chlorine, halogenated chemicals or hardly biodegradable complexing agents, such as ethylenediaminetetraacetic acid (EDTA) and diethylenetriaminepentaacetic acid (DTPA) <p>AND For Carcinogenic Substances, the product shall be listed in IARC Group 1, 2A and 2B shall be < 0.1% by weight of the product.</p>	Laboratory test report(s), MSDS, self-declaration letter and any production documentation	+5	4.4.3.1
	Plasticisers:			

Criteria	Requirements	Verification	Points	Index
			+Bonus	
	Concentration of phthalate in the product below 0.1% by weight of the product. The limited phthalates include the following types: <ul style="list-style-type: none"> • Bis(2-ethylhexyl)phthalate (DEHP) • Dibutyl phthalate (DBP) • Benzylbutyl phthalate (BBP) • Diisononyl phthalate (DINP) • Diisodecyl phthalate (DIDP) Di-n-octyl phthalate (DNOP)			
	Printing Ink: Printing ink used for producing wallpaper shall be water soluble.	Laboratory test report(s), MSDS and production documentation	+5	4.4.3.4
INNOSMART				
Innovations & Additions	Adopt new practice, technology and strategy; <i>OR</i> Achieve exemplary performance.	Narrative with supporting documents	+5	4.6.1
		Subtotal:	+75	

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1. INTRODUCTION

1.1 PURPOSE

The CIC Green Product Certification (the “Scheme”) is a green product labelling scheme, owned by the Construction Industry Council (CIC) and implemented by the Hong Kong Green Building Council (HKGBC). The primary goal of the scheme is to support Hong Kong’s transition to a low-carbon economy by encouraging the adoption of environmentally friendly construction practices.

With the Green Product Certification, various stakeholders, including consumers, building professionals, construction practitioners and policymakers, can easily and unequivocally identify environmentally preferable construction materials and building products. This certification serves as a reliable indicator of a product’s sustainability, helping to drive market demand for greener options.

To ensure the credibility and effectiveness of the certification, the CIC and the HKGBC has jointly developed this Technical Assessment Standards (the “Standard”), which sets out the assessment criteria and their benchmarks to govern the application and award of a grade under the Scheme. The comprehensive assessment evaluates the overall sustainability of construction materials and building products across multiple dimensions. These dimensions include environmental impact, resource efficiency, technical performance, and the use of smart manufacturing technologies.

The Standard is divided into two main parts:

- General Requirements (Refer to General Requirements provided in separate document). This part introduces Scheme's framework, outlines the application procedure, and details the grades.
- Technical Requirements (This document refers). This part defines the principles, requirements and guides for quantifying and reporting the products’ carbon footprint (CFP), along with other sustainability assessment criteria and scoring standards.

This Standard neither modifies nor supersedes laws and regulations. Compliance with this Standard is not a substitute for, and does not assure, compliance with any applicable laws or regulations. Compliance with all applicable laws and regulations is a prerequisite for the manufacturing and marketing of the product.

The Scheme is owned by the Construction Industry Council (CIC), 38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong Kong; and operated by Hong Kong Green Building Council (HKGBC), 1/F, Jockey Club Environmental Building, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong, Phone: +852 3994 8888, Email: cicgpc@hkgbc.org.hk.

1.2 BACKGROUND

Wall coverings are commonly used for decorating the internal wall of buildings. The production process of wall covering materials emits pollutants, as well as generating adverse impacts to the environment and human health. Wall covering materials such as wallpaper may also cause indoor air pollution by emitting hazardous substances including formaldehyde and aldehydes.

The purposes of this Standard for wall covering are, therefore, to minimise the use and subsequent release of harmful substances to the environment and human throughout the product's life cycle, to conserve resources and energy, and to reduce the amount of waste disposed in landfills. The development of the criteria in this Standard has made references to worldwide relevant eco-labelling schemes and some existing life cycle assessment (LCA) studies.

2. SCOPE

This Standard applies to finish wall coverings used on interior building surfaces where the wall covering is positioned at an angle of not less than 30 degrees from the ceiling or floor plane. The scope specifically excludes any support structures/systems used to install the wall covering. For products employing both a coating and substrate system, acceptable coating and substrate materials may include vinyl, acrylic, fabric, textile, paper, and natural materials. Paints and standalone coatings are not covered under this Standard.

Subsequent application is also available for similar products with the same raw materials of a labelled product series, which is only eligible for applying within the validity period of the label. Maximum **5 (FIVE)** subsequent applications are allowed for each first application.

3. DEFINITIONS

<i>Applicant:</i>	Organisations which apply for the label of the CIC Green Product Certification of the Construction Industry Council
<i>ASTM:</i>	American Society for Testing and Materials
<i>BS:</i>	British Standards
<i>CCA:</i>	Carbon Credit Accounting
<i>CIC:</i>	Construction Industry Council
<i>CNAS:</i>	China National Accreditation Service for Conformity Assessment
<i>Chamber Method:</i>	Method to test VOC emissions by placing a material inside a sealed chamber with controlled temperature, humidity, and airflow. VOCs released from the material are measured in the chamber air over time to determine emission rates, helping evaluate the material's impact on indoor air quality.

<i>CDPH:</i>	California Department of Public Health
<i>EMAS:</i>	Eco-Management and Audit Scheme (EMAS) is an environmental management tool which enables organisations to assess, manage and continuously improve their environmental performance
<i>GB:</i>	National Standards of China
<i>HKAS:</i>	Hong Kong Accreditation Service
<i>HKGBC:</i>	The Hong Kong Green Building Council Limited
<i>HOKLAS:</i>	The Hong Kong Laboratory Accreditation Scheme
<i>IARC:</i>	International Agency for Research on Cancer
<i>ISO:</i>	International Organisation for Standardisation
<i>MSDS:</i>	Material Safety Data Sheet. To qualify as suitable, MSDS and information therein must not be more than 5-years old
<i>NSF:</i>	National Sanitation Foundation
<i>Post-consumer recycled content:</i>	Consumer waste, generated by end-users and can no longer be used for its intended purpose. Examples include construction and demolition debris, materials collected through recycling programs, discarded products (e.g., furniture, cabinetry, decking), and landscaping waste (e.g., leaves, grass clippings, tree trimmings)
<i>Pre-consumer recycled content:</i>	Recycled content comes from process waste that is used to make a different product
<i>Recycled fibres:</i>	Fibres collected from the conversion and consumer stages. Purchased broke and broke from own production is defined as new fibre (if the raw material is new fibre) and as recycled fibre (if the raw material is recycled)
<i>Third-party:</i>	An entity without any financial interest or stake in the sales of the product or service being evaluated or other conflict of interest
<i>VOC:</i>	Volatile organic compounds refer to any organic compound (compound which contains carbon) with either a boiling point below 250°C measured at 101.3 kPa or a vapour pressure of more than 0.1 mm Hg measured at 25°C
<i>Wallpaper:</i>	Finishing materials using paper as base material and being pasted on walls or ceilings, excluding wall blanket and other similar wall hanging

4. EVALUATION CRITERIA

A product to be assessed shall meet all the minimum requirements of the “Core Criteria” in order to be awarded a “Green” (i.e. a “pass” grade) grade under the Scheme. Bonus points may be awarded if the product meets the “Non-core Criteria”. “Bronze”, “Silver”, “Gold” or “Platinum” grade will be awarded according to the total points accumulated, as shown in Table 1.

Table 1: Benchmarks for grading

Points achieved	Grade to be awarded
90 or above	Platinum
80 – 89	Gold
70 – 79	Silver
60 – 69	Bronze
50 – 59	Green
Below 50	No grade

All submissions and documentations shall be endorsed by the Chief Executive Officer or other authorised persons of the Applicant to demonstrate conformance to the assessment criteria. All certification, laboratory reports, and documentation must be valid during the assessment process and labelling period. The date of issue of all laboratory reports and documentation shall be within 5 years from the first application submission date.

If the certification expires during the labelling period or upon renewal, the applicant is required to provide an updated and valid certification. Failure to resubmit the required certification will result in the revocation of CIC Green Product Certificate without compensation.

The chemical tests should be conducted by either a third party or the manufacturer, providing that they have obtained ISO 17025 certification or relevant national accreditations, such as HOKLAS or CNAS.

4.1 BASIC INFORMATION

4.1.1 Product Information – Core Criteria

The Applicant is required to achieve 5 Basic Points under this section.

Requirements

5 Basic Points for providing following information on the product packaging, catalogue and/or company website for compliance:

- Basic product specifications
- Country of origin
- Installation method
- Instructions for correct use and storage to maximise the lifetime of the product
- Methods of cleaning application equipment
- Possible toxicity or health hazards imposed by the chemical components

Verification

Documentation showing the product information and instructions including, but not limited to, product catalogue, technical datasheet, webpages, and/or any other information freely accessible by customers.

4.2 CARBON

4.2.1 CFP Quantification – Non-core Criteria

The Applicant can achieve maximum 10 Bonus Points under this section.

Requirements

10 Bonus Points for providing life cycle assessment report for quantifying and reporting the carbon footprint of products (CFP), covering at least A1 (raw material supply), A2 (transport) and A3 (manufacturing process). This can be achieved by either of the following:

Conduct CFP study report in accordance with ISO 14067:2018, GB/T 24067-2024 or equivalent.

OR

10 Bonus Points for providing the product's CFP value from a product level EPD issued in accordance with ISO 14025:2006, ISO 14067:2018, BS EN 15804:2012, ISO 21930:2017, GB/T 24067-2024.

Verification

Either of the following documents shall be provided for verification.

CFP quantification report endorsed by a third-party critical review, in accordance with ISO 14067:2018, GB/T 24067-2024 or equivalent .

OR

Environmental Product Declaration endorsed by a third-party fulfilling the above requirements.

4.3 RESOURCE

4.3.1 Material Optimisation

The Applicant is required to achieve 15 Basic Points under this section.

4.3.1.1 Raw Materials – Core Criteria

Requirements

15 Basic Points for demonstrating that the product with more than 10% (by weight) of paper, fabric and plastic shall meet the following minimum requirements:

Paper

Either one of the requirements (recycled content or sustainable sources) shall be fulfilled:

- $\geq 20\%$ Recycled contents
- $\geq 50\%$ raw materials from sustainable sources

Fabric / Plastic

- $\geq 20\%$ Recycled contents

Verification

Detailed report(s) of the raw materials of wall covering products including supporting evidence and relevant production documentation, as well as certification documents for the raw materials.

4.3.2 Circularity

The Applicant can achieve maximum 10 Bonus Points under this section.

4.3.2.1 Recyclability – Non-core Criteria

Requirements

5 Bonus Points for demonstrating that the manufacturer has developed a recycling plan for the product and declared options for reuse, recycling, recovery and disposal. The plan shall include the following and be made available to public:

- Designate all homogeneous materials in the product as being intended for technical and/or biological cycles and define the intended cycling pathway(s) for each material; and
- Identify potential partners for product reuse, recycling, recovery in accordance with the intended cycling pathway(s); and
- For products and materials intended for municipal recycling, the product and/or material must be compatible for municipal cycling systems (e.g., painted plastics and plastic laminated paper are not currently compatible for municipal recycling); and
- Instructions for how to cycle the product shall be made publicly available.

Verification

Documentation of recycling plan, including, but not limited to product catalogue, MSDS, and written declaration.

4.3.2.2 Packaging Requirement – Non-core Criteria

Requirements

5 Bonus Points for minimizing the wastage from all primary packaging materials. The packaging materials shall achieve either of the followings:

The packaging materials shall not contain halogenated plastics;

OR

The packaging materials shall be comprised of 100% recycled materials, readily recyclable materials or decomposable materials;

OR

The packaging shall not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent or significantly limit recycling.

Verification

Documentation describing the packaging materials used as well as their chemical composition (if any and where applicable), treatment process, and recyclability.

4.3.3 Waste Management

The Applicant can achieve maximum 5 Bonus Points under this section.

4.3.3.1 Waste Management Plan– Non-core Criteria

Requirements

5 Bonus Points for implementing an effective Waste Management Plan detailing the policies, procedures, and/or a waste management program covering manufacturing operations. The waste management plan should include, but should not be limited to, the following information:

- Initiatives taken to reduce waste generation and improve recovery/recycling of waste; and
- Initiatives implemented for recovery of post-consumer and/or pre-consumer waste that can be re-introduced into the manufacturing process; and
- Other environmental benefits or constraints associated with waste minimisation objectives and processes.

Verification

Documentation of waste management programme plan detailing the above, supported by organisational policy or other equivalent documents.

4.3.4 Water Management

The Applicant can achieve maximum 10 Bonus Points under this section.

The Applicants can select one of the options below and comply with any or all the requirements under that option to achieve the associated points.

Option A:

4.3.4.1 Water Consumption Reporting – Non-core Criteria

Requirements

5 Bonus Points for reporting both potable and non-potable water usage in the production process of the past year.

Verification

Water consumption report, supported by water usage data acquired from water meter, water sub-meter, water bill or other equivalent documents.

4.3.4.2 Water Recycling Program – Non-core Criteria

Requirements

5 Bonus Points for developing and implementing water recycling program during the manufacturing process.

Verification

Documentation demonstrating the implementation of water recycling program, supported by drawings, water usage data acquired from water sub-meter or other equivalent documents.

Option B:

4.3.4.3 Water Management System – Non-core Criteria

Requirements

10 Bonus Points for possessing valid certificates under ISO 14046: Environmental management – Water footprint – Principles, requirements and guidelines.

ISO 14046 is a framework for assessing the water footprint of products, processes, and organisations. It provides principles, requirements, and guidelines for conducting and reporting water footprint assessments. It helps organisations evaluate and improve their water management practices.

Verification

A valid ISO 14046 Certificate issued by accredited certification bodies.

4.3.5 Energy Management

The Applicant can achieve maximum 10 Bonus Points under this section.

The Applicants can select one of the options below and comply with any or all the requirements under that option to achieve associated points.

Option A:

4.3.5.1 Energy Management Plan – Non-core Criteria

Requirements

5 Bonus Points for implementing effective energy management policies and procedures and/or an energy management programme, including but not limited to the following items:

- Energy efficiency initiatives: Manufacturer should undertake specific initiatives to reduce energy use and improve energy efficiency throughout their operations. This could include upgrading to more efficient equipment, optimising production processes, or implementing energy-saving technologies; and
- Supplier requirements: Manufacturers should extend their energy management efforts to their supply chain by establishing requirements or initiatives for suppliers and contract manufacturers to improve their energy performance where possible.

Verification

Documentation of Energy Management Plan detailing the above, supported by organisational policy or other equivalent documents.

Option B:

4.3.5.2 Energy Management System – Non-core Criteria

Requirements

10 Bonus Points for possessing valid certificates under ISO 50001: Energy management systems — Requirements with guidance for use.

ISO 50001 provides a framework for organisations to establish, implement, maintain, and improve an Energy Management System. The goal is to help organisations improve their energy performance, increase energy efficiency, and reduce energy costs and greenhouse gas emissions. By achieving ISO 50001 certification, manufacturers can demonstrate their commitment to energy efficiency and sustainability

Verification

A valid ISO 50001 Certificate issued by accredited certification bodies.

4.4 ENVIRONMENT

4.4.1 Environmental Management

The Applicant can achieve maximum 5 Bonus Points under this section.

4.4.1.1 Environmental Management System – Non-core Criteria

Requirements

5 Bonus Points for possessing valid certificate under ISO 14001: Environmental management systems — Requirements with guidance for use or EU Eco-Management and Audit Scheme (EMAS).

The target of the environmental management system shall be set to reduce the environmental impacts during the manufacturing process which include, but are not limited to, the reduction of hazardous substance emissions, energy consumption, CO₂ emissions, secondary environmental load, waste management, water management, etc.

ISO 14001 is the international standard which provides an outline of how to meet the environmental policy and objectives for the business of the applicant.

Eco-Management and Audit Scheme (EMAS) is an environmental management tool which enables organisations to assess, manage, and continuously improve their environmental performance.

Verification

A valid ISO14001 or EMAS Certificate issued by accredited certification bodies

4.4.2 Regional Product

The Applicant can achieve maximum 5 Bonus Points under this section.

4.4.2.1 Regional Manufactured Product – Non-core Criteria

Requirements

5 Bonus Points for products that are manufactured within 800km radius of HKSAR by road transportation; within a 1,600km radius by rail transportation; or within a 4,000km radius by sea transportation. The distance is measured by the direct distance, not by actual travel distance.

Verification

Documents demonstrating the location of the manufacturer and a map showing the distance between the manufacturer and HKSAR.

4.4.3 Human Toxicity and Ecosystem Impact

The Applicant can achieve maximum 25 Points under this section.

The Applicant is required to achieve 10 Basic Points under this section. Additionally, the Applicant can achieve maximum 15 Bonus Points under this section.

4.4.3.1 Hazardous Substances – Non-core Criteria

Requirements

5 Bonus Points for demonstrating that the following substances in the products shall not exceed the below limits (% by weight of the product):

- Chlorofluorocarbons (CFCs): 0.1%;
- Chlorophenols: 20 µg/kg of fibre in textile materials;
- Extractable organic halogens (EOX): 3 mg/kg fibre in textile materials; and
- Release of vinyl chloride monomer: 1 mg/kg.

AND

The following substances shall not be added in the manufacturing process:

- Sodium hexafluorosilicate;
- N-(a-(1-nitroethyl)benzyl)-ethylene diamine
- Mixture of tris-(hydroxymethyl)-nitromethane, 5-chloro-2-methyl-4-isothiazoline-3-one and 2-methyl-4-isothiazoline-3-one
- Tetramethylthiuram disulphide
- Chemicals for bleaching including chlorine, halogenated chemicals or hardly biodegradable complexing agents, such as ethylenediaminetetraacetic acid (EDTA) and diethylenetriaminepentaacetic acid (DTPA)

AND

The product shall not contain any carcinogenic substances or chemicals that are classified as Group 1, 2A or 2B according to International Agency for Research on

Cancer (IARC) ¹. Any such carcinogens which are known to be present as contaminants shall be less than 0.1% by weight of the product.

Verification

Laboratory test report(s), MSDS, self-declaration letter and production documentation to demonstrate the compliance with the criteria mentioned above.

4.4.3.2 Heavy Metals – Core Criteria

Requirements

10 Basic Points for demonstrating that the heavy metals in the products shall be less than the following limits.

Table 2: The limits for heavy metals

Heavy metals	Limits (mg/kg)
Arsenic	< 25
Barium	< 500
Cadmium	< 25
Chromium	< 60
Lead	< 90
Mercury	< 20

Verification

Laboratory test report(s) shall be compiled according to the National and International test methods.

4.4.3.3 Plasticisers – Non-core Criteria

Requirements

5 Bonus Points for demonstrating that the concentration of phthalate in the product shall be below 0.1% by weight of the product. The requirement is applicable to products using rubber as raw materials.

The limited phthalates include the following types:

- Bis(2-ethylhexyl)phthalate (DEHP)
- Dibutyl phthalate (DBP)
- Benzylbutyl phthalate (BBP)
- Diisononyl phthalate (DINP)
- Diisodecyl phthalate (DIDP)
- Di-n-octyl phthalate (DNOP)

¹ [Agents Classified by the IARC Monographs, Volumes 1–137 – IARC Monographs on the Identification of Carcinogenic Hazards to Humans](#)

Verification

Laboratory test report(s) shall be compiled according to the National and International test methods, including, but not limited to, Standard Operating Procedures for Determination of Phthalates (CPSC-CH-C1001-09.3).

4.4.3.4 Printing Ink – Non-core Criteria

Requirements

5 Bonus points for using water soluble printing ink for producing wallpaper (if applicable).

Verification

Laboratory report(s), MSDS and any relevant production documentation.

4.4.4 Volatile Organic Compounds (VOC)

The Applicant is required to achieve 10 Basic Points under this section.

4.4.4.1 Formaldehyde – Core Criteria

Requirements

5 Basic points for demonstrating that the finished wall covering product shall not exceed emission limits on formaldehyde < 0.05 ppm.

Products should be tested in accordance with either ASTM D 5116-10: Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials / Products or the California Department of Public Health (CDPH) standard method.

Verification

Laboratory report(s) meeting the above requirements.

4.4.4.2 VOC Content – Core Criteria

Requirements

5 Basic points for demonstrating that the finished wall covering product shall not exceed emission limits on Total volatile organic compounds (VOCs) < 0.5 mg/m³.

Products should be tested in accordance with either ASTM D 5116-10: Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials / Products or the California Department of Public Health (CDPH) standard method.

Verification

Laboratory report(s) meeting the above requirements.

4.5 PERFORMANCE

4.5.1 Product Life

The Applicant is required to achieve 10 Basic Points under this section.

4.5.1.1 Serviceability – Core Criteria

Requirements

10 Basic Points for demonstrating the product durability and functionality through at least FOUR testing items which may include, but are not limited to, the following:

- Abrasion Resistance
- Washability
- Stain Resistance
- Colourfastness
- Fire Resistance
- Impact Resistance
- Tensile
- Moisture Resistance
- Mildew and Fungal Resistance
- Dimensional Stability

Table 3: Standards for Wall Covering

Testing items	Standards
Abrasion Resistance	ASTM D4966, GB/T 1768, GB/T 35611-2017
Washability	ASTM D4828, GB/T 9780, GB/T 35611-2017
Stain Resistance	ASTM D6578, GB/T 18885, GB/T 35611-2017
Colourfastness	ASTM D1148, GB/T 8427, GB/T 251, GB/T 35611-2017
Fire Resistance	ASTM E84, GB 8624, GB/T 35611-2017
Impact Resistance	ASTM D5420, GB/T 1732, GB/T 35611-2017
Tensile	ASTM D5034, GB/T 3923.1, GB/T 35611-2017
Moisture Resistance	ASTM D2247, GB/T 35611-2017
Mildew and Fungal Resistance	ASTM G21, GB/T 1741, GB/T 35611-2017
Dimensional Stability	ISO 10581, GB/T 35611-2017

Verification

Laboratory test report(s) and any production documentation for all relevant quality, durability performance tests.

4.6 INNOSMART

4.6.1 Innovations & Additions – Non-core Criteria

The Applicant can achieve maximum 5 Bonus Points under this section.

Requirements

5 Bonus Points for achieving significant, measurable environmental performance using new practices, technology and strategy not addressed in this Standard.

OR

Demonstrating exemplary performance in any of the existing assessment criteria.

The benefits of environmental performance can be achieved throughout the lifecycle of the products, covering the product, construction process, use and end of life stage. Examples of innovative and smart technologies are shown below.

- Implementing technologies that significantly reduce resource consumption across various aspects.
- Adopting intelligent production methods that leverage automation, data analytics, and innovative design techniques.

Verification

Report with a maximum length of 1,000 words, outline the objectives, solution, and evaluation of the performance achieved by the proposed Smart and Innovative Technologies; and

Include attachments that provide evidence of implementation, along with relevant technical specifications that support the claims made in the report.

5. SCORING

The points for meeting each criterion stated in this Standard are summarized below.

Table 4: Points to be awarded under the assessment criteria of this Standard

Label	Evaluation Criteria		Points		Related BEAM Plus Credits
			Basic	+Bonus	
	Product Information [CORE]		5	-	
Carbon	CFP Quantification		-	+10	
Resource	Material Optimisation	Raw Materials [CORE]	15		MW 6
	Circularity	Recyclability	-	+5	
		Packaging Requirement	-	+5	
	Waste Management	Waste Management Plan	-	+5	
	Water Management	Water Consumption Reporting	-	+5/+10	
		Water Recycling Program			
		Water Management System			
	Energy Management	Energy Management Plan	-	+5/+10	
Energy Management System					
Environment	Environmental Management	Environmental Management System	-	+5	
	Regional Product	Regional Manufactured Product	-	+5	MW 8
	Human Toxicity and Ecosystem Impact	Hazardous Substances	-	+5	
		Heavy Metals [CORE]	10	-	
		Plasticisers	-	+5	
	Volatile Organic Compounds (VOC)	Printing Ink	-	+5	
		Formaldehyde [CORE]	5	-	
VOC Content [CORE]		5	-		
Performance	Product Life	Serviceability [CORE]	10	-	MW 4
InnoSmart	Innovations & Additions		-	+5	IA
Total:			50	+75	

Related BEAM Plus Credits refer to these relevant credits under BEAM Plus New Buildings Version 2.0, as listed below.

- MW 4: Design for Durability and Resilience
- MW 6: Recycled Materials
- MW 8: Regional Materials
- MW 9: Use of Green Products
- Innovations and Additions