cradle to cradle products innovation institute

CRADLE TO CRADLE CERTIFIED®

PRODUCT STANDARD (Full Scope)

Version 4.1

4 // Material Health Requirements

Category Intent

Chemicals and materials used in the product are selected to prioritize the protection of human health and the environment, generating a positive impact on the quality of materials available for future use and cycling.

Requirements Summary

To achieve a desired level within the category, the requirements at all lower levels must also be met.

Requirement	Bronze	Silver	Gold	Platinum
4.1: Product is in compliance with leading chemical regulations.	●	●	●	●
4.2: Product does not contain organohalogen substances of special concern, or functionally related, non-halogenated classes of equivalent concern, above relevant thresholds.	●	●	●	●
4.3: Product is 100% characterized by generic material.	●	●	●	●
4.3 and 4.4: Product is ≥ 75% assessed (complete formulation information collected for 100% of materials released directly into the biosphere).	●	●	●	●
4.5: Strategy developed to phase-out or optimize all x-assessed or grey-rated chemicals.	●	●	●	●
4.3 and 4.4: Product is ≥ 95% assessed (complete formulation information collected for 100% of materials released directly into the biosphere).		●	●	●
4.2: Product does not contain materials with > 1% carbon-bonded halogens by weight, or recognized PBTs or vPvBs. Product does not contain EU CLP Cat.1 and 2 CMRs or substances causing an equivalent level of concern, or exposure is unlikely or expected to be negligible.		●	●	●
4.7: Product has low VOC emissions (required for products permanently installed in buildings).		●	●	●
4.8: Product complies with VOC content limits (required for liquid and aerosol consumer and construction products).		●	●	●

4.3 and 4.4: 100% of homogeneous materials subject to review are assessed (i.e., none have a grey rating due to insufficient data).			●	●
4.6: Product is optimized for Material Health (i.e., all x-assessed chemicals replaced or phased out).			●	●
4.5: Strategy developed to either increase the percentage of preferred (A/a and/or B/b assessed) materials and chemicals in the product or optimize the chemistry in the supply chain.			●	●
4.7: Product has very low VOC emissions or is inherently non-emitting (required for products permanently installed in buildings).			●	●
4.4 and 4.6: All product-relevant process chemicals are assessed (i.e., none have a grey rating due to insufficient data) and no x-assessed chemicals are used.				●
4.6: > 50% of the product is assessed as A/a or B/b.				●
4.9: ≥ 75% of the product's input materials or chemicals have a C2C Certified Material Health Certificate at the Gold or Platinum level or ≥ 50% of the product's input materials or chemicals are Cradle to Cradle Certified at the Gold or Platinum level or equivalent. A strategy is developed to increase percentages over time. OR Environmental health impact hotspot analysis based on life cycle assessment completed, emissions and resource use hotspots that impact human and environmental health are identified, and Material Health optimization strategy is developed based on the results.				●

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5 // Product Circularity Requirements

Category Intent

Products are intentionally designed for their next use and are actively cycled in their intended cycling pathway(s).

Requirements Summary

To achieve a desired level within the category, the requirements at all lower levels must also be met.

Requirement	Bronze	Silver	Gold	Platinum
5.1: Intended cycling pathway(s) for the product and its materials are defined.	●	●	●	●
5.2: A plan has been created to address challenges with the cycling infrastructure at the end of the product's first use; potential cycling partners have been identified.	●	●	●	●
5.3: Select product and material types contain cycled and/or renewable content. Alternative: Limitations that prevent achievement of this requirement are publicly reported.	●	●	●	●
5.4: ≥ 50% of materials by weight are compatible with the intended cycling pathway(s) (i.e., recyclable, compostable, or biodegradable).	●	●	●	●
5.5: Circularity data and cycling instructions are publicly available.	●	●	●	●
5.2: Partnerships for cycling (recovery and processing) of the product have been initiated. If the product is intended for cycling via municipal systems, materials are compatible with those systems.		●	●	●
5.3: Percentage of cycled and/or renewable content, by weight, is equal to or higher than industry averages and/or is consistent with common practice. Alternative: Limitations that prevent achievement of this requirement are publicly reported.		●	●	●
5.4: ≥ 70% of materials by weight are compatible with the intended cycling pathway(s) (i.e., recyclable, compostable, or biodegradable).		●	●	●

A strategy for improving product circularity is developed including plans for: • 5.3: Increasing the amount of post-consumer recycled content and/or responsibly sourced renewable material, as relevant to the product type, • 5.6: Implementing a circular opportunity or innovation, and • 5.7: Improving the product's design for disassembly (if relevant).		●	●	●
5.2: Partnerships for cycling (recovery and processing) of the product according to all intended cycling pathways have been initiated.			●	●
5.3: Percentage of cycled and/or renewable content, by weight, is consistent with values achieved by industry leaders for the product type. Alternative: Limitations that prevent achievement of this requirement are publicly reported.			●	●
5.4: ≥ 90% of materials by weight are compatible with the intended cycling pathway(s) (i.e., recyclable, compostable, or biodegradable) and support high-value cycling. This means that the materials are of high quality and are likely to retain their value for subsequent use. 5.7: If relevant, parts containing these materials are designed for easy disassembly.			●	●
The strategy has been implemented including: 5.3: Increased use of post-consumer and/or responsibly sourced renewable material as relevant to the product type. Alternative: Limitations that prevent increased use are publicly reported. 5.7: A circular opportunity or innovation that increases product circularity.			●	●
5.8: The product is actively cycled (recovered and processed) and/or a program is implemented to increase the cycling rate or quality of the product's materials after use. (Both are required for short-use phase products and for products required to be cycled per leading regulations; one is required for long-use phase products.) For select single-use plastic products, a minimum cycling rate of 50% is achieved.			●	●

5.1: At least two intended cycling pathways are defined for the product and its materials.				●
5.3: Percentage of cycled and/or renewable content, by weight, has reached the technically feasible maximum.				●
5.4: ≥ 99% of materials by weight are compatible with the intended cycling pathway(s) (i.e., recyclable, compostable, or biodegradable). 5.7: If relevant, parts containing these materials are designed for easy disassembly.				●
5.8: The product is actively cycled in an amount consistent with the product's use phase (the shorter the use phase, the higher the minimum percentage required) and a program is implemented to increase the cycling rate or quality of the product's materials after use.				●
Cycling rates and quality are monitored over time, and an increase in cumulative cycling rate or quality is demonstrated.				●

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5.1 Defining the Product's Technical and/or Biological Cycles

Intended Outcome(s)

The applicant has designated all homogeneous materials subject to review in the product as either biological or technical and has identified appropriate cycling pathways for those materials once the product has reached the end of its current use cycle.

Applicable Achievement Level(s)

Bronze and Platinum

Requirement(s)

Bronze level: Designate all homogeneous materials subject to review in the product as being intended for technical and/or biological cycles and define the intended cycling pathway(s) for each material. For materials designated for technical cycles, recycling must be one intended cycling pathway.

Platinum level: Define at least two intended cycling pathway(s) for each homogeneous material subject to review in the product.

The following homogeneous materials must be designated for the biological cycle:

6 // Clean Air & Climate Protection Requirements

Category Intent

Product manufacturing results in a positive impact on air quality, the renewable energy supply, and the balance of climate-changing greenhouse gases.

Requirements Summary

To achieve a desired level within the category, the requirements at all lower levels must also be met.

Requirement	Bronze	Silver	Gold	Platinum
6.1: Final manufacturing facilities comply with air emissions regulations or guidelines – i.e., permits, international guidelines, or industry best practice.	●	●	●	●
6.2: Annual electricity use and greenhouse gas emissions associated with the final manufacturing stage of the product have been quantified.	●	●	●	●
6.3: A strategy for increasing use and/or procurement of renewable electricity and addressing greenhouse gas emissions has been developed. The strategy includes near- and mid-term targets.	●	●	●	●
6.4: 5% target(s)* for procuring or producing renewable electricity and/or addressing greenhouse gas emissions have been achieved. Applicable to final manufacturing stage electricity and emissions only.	●	●	●	●
6.5: Products that use energy during the use phase (e.g., appliances) or that greatly impact the energy efficiency of buildings (e.g., windows, insulation), are certified using a C2CPII-recognized energy efficiency standard or similar, if available.	●	●	●	●
6.6: Greenhouse gas emissions data for the applicant company, for all final manufacturing stage facilities, or for the final manufacturing stage of the product are made available to stakeholders.	●	●	●	●
6.2: For construction products and building materials used to construct primary building elements, the embodied emissions associated with the product from cradle to gate or through end of use have been quantified, a third-party critical review is conducted, and an Environmental Product Declaration (EPD) produced.		●	●	●

6.3: The renewable electricity and greenhouse gas reduction strategy includes long-term target(s) in addition to the near- and mid-term targets.		●	●	●
6.4: 20% target(s)* for procuring or producing renewable electricity and/or addressing greenhouse gas emissions have been achieved. Applicable to final manufacturing stage electricity and emissions only. Alternative: 25% of the embodied emissions associated with the product from cradle to gate or through end of use are offset or otherwise addressed (e.g., through projects with suppliers, product redesign, savings during the use phase). Note: This is required at the Gold level in all cases.		●	●	●
6.2: For all other product types, the embodied emissions associated with the product from cradle to gate or through end of use have been quantified and third-party verification or an internal review is conducted.			●	●
6.4: 50% target(s)* for procuring or producing renewable electricity and/or addressing greenhouse gas emissions have been achieved. Applicable to final manufacturing stage electricity and emissions only. 50% of the renewable electricity (25% of total electricity used) is either produced on site or procured through long-term power purchase agreements (PPAs) or PPAs signed pre-financing supporting new renewable electricity installations. Alternative: Renewable electricity procurement matches 100% of electricity used at final manufacturing facilities.			●	●
6.6: Embodied greenhouse gas emissions data are made available to stakeholders.			●	●
6.7: Blowing agents used in the manufacture of the product's foam materials (any foam > 1% of product by weight) have low to no global warming potential and no ozone depletion potential.			●	●
6.8: 25% of the embodied emissions associated with the product from cradle to gate or through end of use			●	●

are offset or otherwise addressed (e.g., through projects with suppliers, product redesign, savings during the use phase).				
6.2: For all other product types, a third-party critical review of the quantification of embodied greenhouse gas emissions associated with the product from resource extraction through end of use is conducted, and an Environmental Product Declaration (EPD) produced.				●
6.4: Fully electrify, use renewable electricity for total energy demand, and eliminate on-site greenhouse gas emissions: > 100% of electricity is renewably sourced. The electricity is produced on site or procured through long-term power purchase agreements (PPAs) or PPAs signed pre-financing that support new renewable electricity installations. Eligible sources of bioenergy receiving full credit (e.g., wastewater methane) may be used. Applicable to final manufacturing stage electricity and emissions only.				●
6.8: 100% of the embodied emissions associated with the product from cradle to gate or through end of use are offset or otherwise addressed (e.g., through projects with suppliers, product redesign, savings during the use phase).				●

*Depending on the achievement level, the "targets" may apply to renewable electricity procurement or onsite production and use, performance improvements (emissions intensity reductions), absolute emissions reductions, use of eligible bioenergy sources, purchase of carbon offsets, and/or financial donations or investments.

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6.1 Air Emissions Compliance

Intended Outcome(s)

The final manufacturing stage facilities where the product is manufactured are in compliance with regulatory and/or industry best practice air emissions limitations.

7 // Water & Soil Stewardship Requirements

Category Intent

Water and soil are treated as precious and shared resources. Watersheds and soil ecosystems are protected, and clean water and healthy soils are available to people and all other organisms.

Requirements Summary

To achieve a desired level within the category, the requirements at all lower levels must also be met.

Requirement	Bronze	Silver	Gold	Platinum
7.1: Local and product-relevant water and soil issues are characterized. (Required for final manufacturing stage facilities.)	●	●	●	●
7.2: Final manufacturing facilities comply with water quality regulations or guidelines (i.e., permits, international guidelines, or industry best practice). Data to demonstrate the compliance status of off-site, independently operated, effluent treatment facilities (if any) are requested.	●	●	●	●
7.7: Product-relevant chemicals entering effluent or sludge are in compliance with leading chemical regulations. (Required for final manufacturing stage.)	●	●	●	●
7.3: Water use at final manufacturing stage facilities is quantified.	●	●	●	●
7.4: Adequate drinking water, sanitation, and hygiene are provided (final manufacturing stage facilities only).	●	●	●	●
7.5: A strategy for achieving the Silver level water and soil conservation requirements has been developed. For facilities using high volumes of water in stressed locations, the strategy includes water use reduction targets. Progress is reported at recertification.	●	●	●	●
7.1: Water and soil related risks are characterized. (Required for select tier 1 suppliers of key materials.)		●	●	●
7.2: Privately owned, off-site, independently operated effluent treatment facilities (if any), comply with effluent quality guidelines or regulations. Alternatively, a strategy to address the issue has been developed.		●	●	●

7.6: The Bronze level water and soil conservation strategy has been implemented including: • At least one conservation technology or best practice at facilities expected to have the greatest water- or soil-related impacts. (Required for final manufacturing facilities with high-volume processes in stressed locations and facilities with pollutant-intense processes.) • One additional action to conserve water and/or soil either at final manufacturing facilities or in the supply chain. (Required when there are any facilities with high-volume or pollutant-intense processes and/or in stressed locations.)		●	●	●
7.7: Product-relevant process chemicals entering effluent and sludge are defined and assessed.		●	●	●
7.7: Product-relevant effluent and sludge does not contain recognized PBTs, vPvBs, or EU CLP Cat.1 and 2 CMRs, or substances causing an equivalent level of concern, or exposure via effluent and sludge is unlikely or expected to be negligible. (Required for final manufacturing stage.)		●	●	●
7.7: Water use data are made available to stakeholders.		●	●	●
7.5: A strategy for achieving the Gold level water and soil conservation requirements has been developed. Progress is reported at recertification.		●	●	●
7.2: Government owned, off-site, independently operated effluent treatment facilities (if any), comply with effluent quality guidelines or regulations. Alternatively, a strategy to address the issue has been developed. For recertification at the Gold level, all off-site, independently operated effluent treatment facilities (if any), comply with effluent quality guidelines or regulations. Alternatively, manufacturing facilities comply with effluent quality guidelines for direct discharge or otherwise address the issue.			●	●

8 // Social Fairness Requirements

Category Intent

Companies are committed to upholding human rights and applying fair and equitable business practices.

Requirements Summary

To achieve a desired level within the category, the requirements at all lower levels must also be met.

Requirement	Bronze	Silver	Gold	Platinum
8.1: A human rights policy based on international human rights standards and an understanding of the company's risk areas is in place.	●	●	●	●
8.2: Human rights risks are assessed for the applicant company, final manufacturing stage, and direct suppliers to the final manufacturing stage (tier 1). Progress is made on assessing risks beyond tier 1 (i.e., tier 2 and beyond).	●	●	●	●
8.4: A strategy for implementing the human rights policy is developed. At recertification, progress toward achieving the strategy is measured.	●	●	●	●
8.3: For final manufacturing stage facilities, performance against the human rights policy is measured and corrective actions for select issues (e.g., child labor, forced labor) are complete. Corrective actions are planned for any other poor performance issues and, at recertification, progress is demonstrated.	●	●	●	●
8.5: Company executives demonstrate commitment and support for establishing, promoting, maintaining, and improving a culture of social fairness.	●	●	●	●
8.3: Social audit performance data are requested from tier 1 suppliers in high-risk locations. At recertification, progress is made on supply chain data collection and corrective actions, if needed. Corrective actions for select issues (e.g., child labor, forced labor) are complete.		●	●	●
8.6: Management systems support the implementation and oversight of the human rights policy within company operations.		●	●	●
8.7: A grievance mechanism permits company employees and other stakeholders to obtain redress for negative human rights impacts.		●	●	●

8.8: The company has implemented a positive social impact project that measurably improves the lives of employees, the local community, or a social aspect of the value chain.		●	●	●
8.9: The company uses open and transparent governance and reporting, making information on how human rights risks are managed and adverse impacts are addressed publicly available.		●	●	●
8.2: Human rights risks are assessed for the product's components and raw materials (regardless of tier).			●	●
8.3: Materials associated with high risk of child or forced labor or support of conflict are certified to a C2CPII-recognized certification program or an equivalent alternative is in place. If a certification program is not available, a traceability exercise is conducted upon recertification.			●	●
8.6: Responsible sourcing management systems support the implementation and oversight of the policy within the product's supply chain.			●	●
8.7: A grievance mechanism permits contract manufacturer employees and other stakeholders to obtain redress for negative human rights impacts.			●	●
8.8: An assessment has been conducted to determine the impact of the positive impact project using quantitative metric(s). Measurable progress is demonstrated at recertification.			●	●
8.9: The company incorporates stakeholder engagement and feedback into human rights risk management. Stakeholder feedback informs strategy and operations.			●	●
8.10: The company is collaborating to develop and scale solutions to an intractable social issue within the value chain of the product.				●
8.11: The company fosters a diverse, inclusive, and engaged work environment in which social fairness operates as a core part of recruitment, training, remuneration, performance evaluation, and incentive structures.				●