



28-08-2021

TALCO CRADLE TO CRADLE (C2C) CERTIFIED PRODUCTS (AWAITING ASSESSMENT)

1. ALUMINIUM EXTRUSIONS (MILL FINISH)
2. ALUMINIUM EXTRUSIONS, POWDER COATED / WOOD FINISH (TGIC FREE PRODUCT)
3. ALUMINIUM EXTRUSIONS, ANODIZED.

In today's world it is noted, substantial number of companies, manufacturers, customers, individuals are committed to work towards sustainable goals.

We Talco is also proud to be a part of this team/community and we also manufacture Cradle to Cradle certified Products.

The C2C certified product standard established by William McDonough and Dr. Michael Braungart.

This is a globally recognized measure of safer, more sustainable products made for circular economy.

The C2C standard is a transformation path for manufacturing a product with positive impact on people and planet.

To be certified as C2C products, the products are assessed for environmental and social performance across five critical sustainability categories:

Material health, material reuse, renewable energy & carbon management, water stewardship and social fairness.

A brief description of the categories are as follows.

Material Health



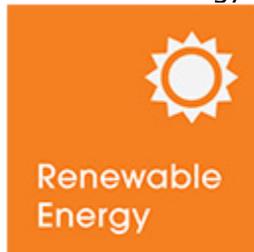
The material health category helps to ensure products are made using chemicals that are as safe as possible for humans and the environment by leading designers and product developers through a process of inventorying, assessing and optimizing material chemistries. As a step towards full certification, manufacturers may also earn a separate Material Health Certificate for products that meet Cradle to Cradle Certified™ material health requirements.

Material Reutilization



The material reutilization category aims to eliminate the concept of waste by helping to ensure products remain in perpetual cycles of use and reuse from one product use cycle to the next.

Renewable Energy & Carbon Management



The renewable energy & carbon management category helps to ensure products are manufactured using renewable energy so that the impact of climate changing greenhouse gases due to the manufacturing of the product is reduced or eliminated.

Water Stewardship



The water stewardship category helps ensure water is recognized as a valuable resource, watersheds are protected, and clean water is available to people and all other organisms.

Social Fairness



The aim of this category is to design business operations that honor all people and natural systems affected by the manufacture of a product.

The Standard also support the product manufacturers to make a measurable progress towards

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGs).

The following table can be referred.

Goal 1: No Poverty

SDG Target	Cradle to Cradle Certified™ v3.1 Requirements & Certification Levels Linked to SDG Target
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.	Social Fairness, Basic level: Determine if there is high risk of wages being below poverty guideline for final manufacturing stage facilities and for the direct suppliers relevant to the certified product. If yes, develop a strategy to address the issue and report on progress at renewal.

Goal 2: Zero Hunger

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.	Material Health, Gold level: The product has been 100% assessed (by weight) using ABC ratings. Cradle to Cradle Certified encourages the use of agricultural raw materials (e.g. cotton) that were grown using organic and similar practices. It does this through the Material Health requirements for assessing biological materials. Identification and assessment of the pesticides used as well as testing for pesticides on materials is required. Organically grown and similar materials are more likely to pass these tests.
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Goal 3: Good Health & Well-being.

<p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.</p>	<p>Material Health, Basic level: Materials in the product may not contain Cradle to Cradle Certified Banned List substances. Bronze level: The product is at least 75% assessed (by weight) using ABC-X ratings. A phase-out or optimization strategy has been developed for those materials with an X assessment rating. Silver level: The product has been at least 95% assessed (by weight) using ABC-X assessment ratings. Assessed materials do not contain carcinogens, mutagens or reproductive toxicants (CMRs). Gold level: The product has been 100% assessed (by weight) using ABC ratings. If any hazardous substances are in use, exposure must be non-plausible or negligible during final manufacturing, product use, and end of use. Platinum level: All process chemicals have been assessed and none have been assessed as x. Water Stewardship, Basic level: The manufacturer has not received a significant violation of their discharge permit. This means that facilities where certified products are manufactured must comply with effluent limitations (i.e. permits, including any pretreatment limits). Silver level: Product-related chemicals released with effluent are characterized and assessed. Gold level: Product-related chemicals released with effluent are optimized (no x-assessed substances)</p> <p>Regulatory compliance is a required baseline for program entry including compliance with all emissions permits and occupational health and safety regulations.</p>
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Goal 6: Clean Water & Sanitation.

<p>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p>	<p>Water Stewardship, Basic level: The manufacturer has not received a significant violation of their discharge permit. This means that facilities where certified products are manufactured must comply with effluent limitations (i.e. permits, including any pretreatment limits). Silver level: Product-</p>
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	<p>related chemicals released with the effluent are assessed (i.e. identified and the level of toxicity is understood). Gold level: Product-related chemicals released with the effluent are optimized. Chemicals identified as problematic are kept flowing in systems of nutrient recovery; effluents leaving facility do not contain chemicals assessed as problematic). Platinum level: Effluent produced due to product manufacture is kept in a closed loop system or the process is dry. Alternatively, all water leaving the facility meets drinking water quality standards</p>
<p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<p>Water Stewardship, Basic level: Local- and business-specific water-related issues are characterized (e.g., the manufacturer will determine if water scarcity is an issue or if sensitive ecosystems are at risk due to direct operations). A statement of water stewardship intentions describing what action is being taken for mitigating the identified problems and concerns is provided. At re-application, progress on action plan is demonstrated.</p>
<p>6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes</p>	<p>Water Stewardship, Basic level: Local- and business-specific water-related issues are characterized (e.g., the manufacturer will determine if water scarcity is an issue or if sensitive ecosystems are at risk due to direct operations). A statement of water stewardship intentions describing what action is being taken for mitigating the identified problems and concerns is provided. At re-application, progress on action plan is demonstrated. This target is also linked to Cradle to Cradle Certified via the other Water Stewardship requirements noted under target 6.3: By avoiding the release of problematic chemicals with effluent, ecosystems are ultimately protected</p>

Goal 7: Affordable & Clean Energy

<p>7.2 By 2030, increase substantially the share of renewable energy in the global energy mix</p>	<p>Renewable Energy & Carbon Management, Basic level: Annual electricity use and greenhouse gas emissions are quantified for the final manufacturing stage of the certified product. Bronze level: A renewable electricity</p>
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	<p>use and carbon management strategy is developed. Silver level: For the final manufacturing stage of the product, 5% of electricity is renewably sourced or offset with renewable electricity projects, and 5% of GHG emissions are offset. Gold level: targets increased to 50% Platinum level: targets increased to >100 % The renewable energy targets may be met by using renewables installed on site, purchasing Renewable Energy Certificates (RECs), Guarantees of Origin (GOs) or similar, or by purchasing offsets that support renewable energy projects.</p>
<p>7.3 By 2030, double the global rate of improvement in energy efficiency</p>	<p>Indirectly addressed in that a reduced amount of renewable electricity and/or offsets would have to produced or purchased in order to achieve at a given level. Direct credit for improving energy efficiency is proposed for inclusion in the next version of the standard.</p>

Goal 8: Decent Work & Economic Growth

<p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead.</p>	<p>Material Reutilization, Basic level: All generic materials in the product are defined as an intended part of a biological or technical cycle. Bronze-Platinum levels: The product contains an increasing percentage of recycled or rapidly renewable content and/or increasing percentage of recyclable material. Gold level: The manufacturer has developed a nutrient management strategy for the product (e.g. a take-back program, product as service scenario, or the product is recyclable in standard municipal systems) Platinum level: The product is actively being recovered and cycled. As noted for Goal 3, the Cradle to Cradle Material Health and Water Stewardship categories provide a pathway for optimizing the chemicals used to manufacture products. The combination of these requirements result in a product that is safely cycled by the Gold and Platinum levels..</p>
<p>8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the</p>	<p>Social Fairness, Basic level: A self-audit must be conducted to assess protection of fundamental human rights for final</p>

<p>prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms</p>	<p>manufacturing stage facilities and direct suppliers of certified product inputs. Any location or industry associated high risk of child labor or forced labor must be identified. Management procedures aiming to address any identified issues must be provided. Demonstration of progress on the management plan is required for recertification. For suppliers, this is typically addressed via supplier codes of conduct. Platinum level: A facility-level audit is completed by a third party against an internationally recognized social responsibility program (e.g. SA8000)</p>
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Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

<p>9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries</p>	<p>Cradle to Cradle Certified provides a pathway for manufacturers to ultimately produce products in a fully sustainable manner through a combination of all five program categories</p>
<p>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</p>	<p>Cradle to Cradle Certified provides a pathway for manufacturers to ultimately produce products in a fully sustainable and clean manner through a combination of all five program categories.</p>

Goal 11: Sustainable Cities and Communities

<p>11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage</p>	<p>Not directly applicable, although a transition to sustainable manufacturing will support the protection of the world’s natural heritage. The contribution of Cradle to Cradle Certified towards achieving sustainable manufacturing was discussed under Goal 9.</p>
<p>11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>	<p>A transition to sustainable manufacturing, including use of renewable energy, and the design of products for cycling, will also reduce the environmental impact of cities (see further information under Goals 7, 8, and 9)</p>

Goal 12: Responsible Consumption & Production

<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources</p>	<p>See discussion under Goal 8. Briefly, the Cradle to Cradle Certified Material Reutilization and Material Health requirements encourage manufacturers to create products using safe materials that can be repeatedly cycled. Once fully implemented, this approach would greatly reduce the need for new extraction and harvesting of natural resources. Although the ultimate goal of Cradle to Cradle Certified is to reduce and avoid the need for new extraction and harvesting, in the next version of the standard (to be released in 2019 for public consultation), requirements relevant to the responsible sourcing of extracted and harvested materials will also be extended and improved upon, acknowledging that this ultimate goal will take significant effort to fully implement</p>
<p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p>	<p>See comments under Goal 8. The Material Reutilization category encourages cycling of materials. The next version of the standard (to be released in 2019 for public consultation), will expand on and improve on these criteria.</p>
<p>12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p>	<p>All companies that participate in the Cradle to Cradle Certified program are encouraged to adopt sustainable practices, as detailed previously under the other Goals. The ideas behind the program have inspired companies large and small. Requirements relevant to sustainability reporting are not currently included in the Cradle to Cradle Certified standard. Reporting on the risks associated with the chemicals in the certified product is optional. The next version of the standard (to be released in 2019 for public consultation), will require transparency on several sustainability issues.</p>
<p>12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities</p>	<p>As an international product certification program that is aligned with the Sustainable Development Goals that are most directly relevant to products, Cradle to Cradle Certified provides a means by which public procurement officials can work towards achieving this target.</p>

Goal 13: Climate Action

<p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	<p>Renewable Energy & Climate, Basic level: Annual electricity use and greenhouse gas emissions associated with the final manufacturing stage of the product are quantified. Bronze: A renewable electricity use and carbon management strategy is developed. Platinum: The embodied emissions associated with the product from Cradle to Gate is characterized and quantified, and a strategy to optimize is developed. At reapplication, progress on the optimization plan is demonstrated.</p>
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Goal 14: Life Below Water - Conserve and sustainably use the oceans, seas and marine resources

<p>14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution</p>	<p>See discussion under Goal 6. The Cradle to Cradle Water Stewardship criteria contribute directly to reducing pollution from land-based activities</p>
<p>14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans</p>	<p>Water Stewardship, Basic level: Local- and business-specific water-related issues are characterized (e.g., the manufacturer will determine if water scarcity is an issue or if sensitive ecosystems are at risk due to direct operations). A statement of water stewardship intentions describing what action is being taken for mitigating the identified problems and concerns is provided. At reapplication, progress on action plan is demonstrated.</p>
<p>14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all level</p>	<p>Not directly applicable. However, acidification is largely caused by an uptake of CO2 by oceans, and Cradle to Cradle Certified does encourage a move towards renewable energy and use of carbon offsets to address emissions that are not avoided. Manufacturing is responsible for more than one third of energy use globally and so a move to using renewable will greatly reduce the release of new carbon dioxide available for ocean uptake.</p>
<p>14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing</p>	<p>In most cases this is not directly applicable because food is out of scope for Cradle to Cradle Certified. However, if any certified</p>

practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	product is made using materials obtained from a fishery, including by-products, the fishery must be certified to a sustainable fishery standard.
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Goal 15: Life on Land - Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

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	Water Stewardship, Basic level: Local- and business-specific water-related issues are characterized (e.g., the manufacturer will determine if water scarcity is an issue or if sensitive ecosystems are at risk due to direct operations). A statement of water stewardship intentions describing what action is being taken for mitigating the identified problems and concerns is provided. At re-application, progress on action plan is demonstrated.
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.	Material Reutilization category: Wood products must be responsibly sourced using a Cradle to Cradle Accepted Certification program (e.g. Forest Stewardship Council certified) in order to count as renewable in this category. For products made of virgin wood, 100% of the wood has to be certified to a responsible sourcing program in order to achieve at the Gold level in this program category. In the next version of the standard, to be released in 2019 for public consultation, responsible sourcing requirements will be expanded to other material types and moved to lower certification levels in some cases.
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	Indirect link: Through the Renewable Energy & Carbon Management category, Cradle to Cradle encourages manufacturers to use renewable energy and purchase carbon offsets for any remaining emissions. Offset projects supporting renewable energy are required if using offsets to address emissions from non-renewable electricity use, while offset projects that aim to sequester carbon in forests or soil are encouraged for addressing emissions resulting from non-electrical sources

<p>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</p>	<p>In addition to the Water Stewardship requirement noted under target 15 which is relevant here, in the next version of the standard, to be released in 2019 for public consultation, responsible sourcing requirements will be greatly expanded to include many raw materials commonly associated with environmental degradation and habitat loss concerns</p>
<p>15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products</p>	<p>Products containing material from endangered and threatened species are out of scope for Cradle to Cradle Certified (i.e. such a product would not be eligible for certification).</p>
<p>15.B Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation</p>	<p>Material Reutilization category: Wood products must be responsibly sourced using a Cradle to Cradle Accepted Certification program (e.g. Forest Stewardship Council certified) in order to count as renewable in this category. This approach supports achievement of this target by helping to sustain or increase demand for sustainable material. In the next version of the standard, to be released in 2019 for public consultation, responsible sourcing requirements will be greatly expanded to include many raw materials commonly associated with environmental degradation and habitat loss concerns.</p>