

ENVIRONMENTAL RESPONSIBILITY

Stainless Steel

- According to the Specialty Steel Industry of North America approximately 60% of the world's stainless steel production contains recycled material. Some products will have a lower recycled content while others will be higher, based on melting location, grade and product form. Please contact a Contrarian Metal Resources Product Consultant for details of the recycled content specific to your project.
- The relatively high value of stainless steel scrap assures that the bulk of discarded items are quickly re-melted and not sent to a landfill.
- Some recycled materials, like rubber, plastic and painted aluminum that is not de-coated, suffer quality degradation or have limitations regarding suitability for certain applications. Recycled stainless steel, however, has no such limitations. Stainless steel is extremely durable as well as stable at ambient temperatures.
- Stainless steel, often used in jewelry, medical implants and cookware, is harmless to living things.
- Since stainless alloys are extremely stable at ambient temperatures, there is no leaching or run-off.
- Stainless steel production in the US, as well as other advanced nations, makes use of substantial pollution control technology. While it still consumes some natural resources, as well as energy to produce, many other materials use more resources, creating a higher environmental impact. The recycled content of stainless steel produced in the United States is higher than that of most other countries.
- Having a favorable strength-to-weight ratio compared to most other metals, stainless can be engineered to lighter gauges, thus consuming less material.
- Stainless steel has substantially lower thermal conductivity than metals like aluminum and carbon steel that are more commonly used as building materials. Theoretically, a stainless steel building envelope will absorb less energy, thereby reducing the transmission of external energy (heat) to the interior spaces. In cold weather, the opposite effect of reducing the transfer of energy to the exterior would be true.

Titanium

- Titanium production, like that of stainless steel, relies heavily on recycled scrap.
- The relatively high value of titanium scrap assures that the bulk of discarded items are quickly re-melted and not sent to a landfill.



Sharp Hospital – Product: InvariMatte® Stainless Steel

Our philosophy regarding architectural metals is to select a product that will last the useful life of the building with little or no maintenance. This usually results in the least long-term cost to the building owner (see Life Cycle Costing). In addition, significantly less harm can be made to the environment by using long life materials as opposed to more commonly used materials that require maintenance and replacement. Specifically, our portfolio of high performance architectural metals serves this philosophy well. Beyond offering sustainability (when properly specified and installed) these metals are, by their nature, environmentally “green” materials.

- The use of paint and other coatings can be avoided, eliminating their environmental hazards.
- Titanium will perform in severe environments, where most other metals will fail (marine locations where sea spray is a problem or chemical processing plants). Designing for permanence is both environmentally and economically sensible.
- Often used in medical implants, titanium is harmless to living things.
- Titanium is extremely stable, eliminating the risk of leaching or run-off.
- As in stainless steel production, there is substantial application of pollution control equipment in the manufacturing of titanium.
- With a favorable strength-to-weight ratio compared to most other metals, including stainless, titanium can be engineered to the lightest of gauges, thus consuming less material.
- Titanium has substantially lower thermal conductivity than metals like aluminum and carbon steel that are more commonly used as building materials. Theoretically, a stainless steel building envelope will absorb less energy, thereby reducing the transmission of external energy (heat) to the interior spaces. In cold weather, the opposite effect of reducing the transfer of energy to the exterior would be true.

Zinc

- With scrap utilization growing, more than one third of North America's zinc is currently recycled.
- The relatively high value of zinc scrap assures that the bulk of discarded items are quickly re-melted and not sent to a landfill.
- While a degree of zinc oxide runoff occurs in the natural weathering process, the oxide is invisible (does not stain surrounding materials) and also quite harmless to animals.
- The use of paint and other coatings can be avoided. In particular, natural zinc has a similar appearance to lead-coated copper, without the toxic hazards of lead.
- As in stainless steel and titanium production, there is substantial application of pollution control equipment in the manufacturing of commercially pure zinc.

Green Globes Design™

There are a number of areas where the use of our materials can contribute to the accumulation of Green Globes Design points:

- Environmental Purchasing
- Reduced Heat Island Effect
- Energy Performance
- Reduced Energy Demand
- Minimal Consumption of Resources
- Building Durability, Adaptability and Disassembly
- Reduction, Reuse & Recycling of Demolition Waste

Upon request, we will provide a detailed letter in support of these assessment factors as they relate to the application of our products for a specific building project.

LEED® (Leadership in Energy & Environmental Design)

With respect to LEED credits, our products are eligible for two to four points based on what material is selected, how it is used and where the building is located. Please contact us for assistance in pre-qualifying LEED points for your specific project. If you wish, we will provide a detailed letter indicating LEED eligibility. LEED criteria for which points may be earned include Recycled Materials, SRI (Solar Reflectance Index), Regional Materials, and potentially low-emitting materials as these metals do not emit anything into the atmosphere at ambient temperatures.

Revised Feb. 2012 – *This statement supersedes all prior documentation regarding the recycling of stainless steel.*



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