

NZGBC Green Star Design and As Built NZv1.0 COLORSTEEL® Sustainability Credentials Summary

COLORSTEEL® is able to contribute to a number of credits within the Green Star Design and As Built NZv1.0 rating tool, prepared by the New Zealand Green Building Council (NZGBC). A full version of the rating tool is available through the [NZGBC website](#).

Credit 21: Sustainable Products

The Sustainable Products credit awards up to 3 points for the use of materials that meet transparency and sustainability requirements through: reused products, recycled content, environmental product declarations, third-party certification (eco-labels), or stewardship programs.

Points are awarded based on the percentage value of the products that meet one of the specified initiatives. This is demonstrated by calculating the Project Sustainability Value (PSV) and comparing it with the Project Contract Value (PCV). The proportion of compliant products is calculated as:

$$\% \text{ of project materials value} = \frac{\sum \text{Product Cost (\$)} \times \text{Sustainability Factor}}{\text{Total Project Materials Value (\$)}} \times 100$$

Points are awarded incrementally for each 3% of 'Compliant Products', to a total of 3 points (for 9% compliant products).

A summary of our qualification for points under this credit is as follows:

COLORSTEEL® is eligible for a Sustainability Factor of 1.0 by:

- Having our pre-painted and resin coated products third party certified to the Environmental Choice NZ EC-57-16 specification¹
- EC-57-16 is recognized as a 'Level A Eco-Label', which means COLORSTEEL® qualifies for the full 1.0 Sustainability Factor.

COLORSTEEL® is eligible for a Sustainability Factor of 0.75 by:

- Having a product-specific Environmental Product Declaration

Sustainability factors (SF) are not cumulative; if a product has two or more applicable sustainability credentials, only the highest SF is applied. Individual SFs cannot be added together. Projects using COLORSTEEL® would therefore apply the SF relating to the ECNZ certification, unless this were unavailable for a particular product in which case the SF relating to the EPD would apply.

1. Third Party Certified Products are defined as holding: a current product certificate for the specified product/s from an eco-label recognised by the NZGBC.



Example: A Green Star project uses COLORSTEEL® at 10% of the project value. COLORSTEEL® has a Level A Third Party Certification (ECNZ). The calculation in this case is $10\% * 1.0 = 10\%$ of the project value meets the criteria, and the project would achieve 3 points under this credit. If COLORSTEEL® made up a smaller percentage of the project value, the project might need to consider the sustainability credentials of additional materials.

Credit 19A Life Cycle Assessment

Green Star recognises that buildings are long-lived and resource intensive, so they consider the full life cycle impacts of the project. Green Star allows projects to follow one of two pathways for this credit. COLORSTEEL® is able to contribute to the first pathway – performance-based Life Cycle Assessment.

Points are awarded based on the level of improvement a project achieves compared to a reference building (the building that would otherwise be built if Green Star was not applied).

The improvement is calculated on the basis of 'cumulative reduction', being the sum of improvements for all 7 different environmental impact categories (carbon footprint, acidification potential, etc.). A 30% improvement gives 1 point, while 130% improvement is needed for the full 6 points available.

The COLORSTEEL® EPD feeds data into the Life Cycle Assessment. Without product-specific EPD data, the project would have to use country averages or generic data.

COLORSTEEL® has an indirect impact on this credit, since the points awarded for the project depend on the overall level of improvement a project achieves and the contribution from COLORSTEEL® depends on the quantity used in the project and the difference to the generic data. It is not therefore possible to state how many points a given product will have.

Example: A Green Star project uses COLORSTEEL® at 20% of the total life-cycle impacts of the project and COLORSTEEL® has 30% lower impacts than the industry average across all 7 environmental impact indicators. Use of COLORSTEEL® would reduce the total project-level footprint by $20\% * 30\% * 7 = 42\%$ cumulative reduction = 1 point from COLORSTEEL® alone. This example assumes that impacts of the other materials are not worse than the industry average.

Contribution to other credits

Steel is lightweight, strong and durable, enabling a range of design solutions that may contribute to credits across the rating scheme. Our designers would be happy to work with you to understand how COLORSTEEL® and our other products can best support your project.

