

Greenstar Credits

Design and As Built NZ v1.0

May 2020



NZGBC Green Star Credits

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Pacific Steel SEISMIC® products are able to contribute to a number of credits under the Green Star Design and As Built NZ v1.0 rating tool, prepared by the New Zealand Green Building Council (NZGBC). A full version of the rating tool is available to NZGBC Members and GSAPs through the [NZGBC website](#).

This document is intended as a guide only. The final awarding of points in a Green Star Design & As Built assessment is at the discretion of the Green Star Assessors.

Credit 19B.2:

Life Cycle Impacts – Reduced Use of Steel Reinforcement

19B.2
CREDIT CRITERIA

1 POINT IS AVAILABLE WHERE:

- project teams can demonstrate a 5% reduction in the mass of reinforcing steel used in the building when compared to standard practice.

HOW DO YOU DEMONSTRATE COMPLIANCE?

To demonstrate compliance the Submission Template must be completed by a qualified Structural Engineer that includes the following:

- A description of how the amount of reinforcing steel has been reduced;
- Calculations of the reduction in the total amount (by mass) of reinforcement necessary for the design structure against a reference case;
- Standard reinforcement detailing shall be defined by an industry standard such as the Reinforcement Detailing Handbook – Concrete Institute of Australia;
- Justification of the reference case reinforcing rates;
- Confirm that the reduction has been achieved by without changing the load path to other structure elements that are not steel.

NOTE: If the material cost of structural and reinforcing steels represents less than 1% of the project's total contract value, or there are no new structural or reinforcing steels used in the project, the 'Life Cycle Impacts – Steel' pathway (19B.2) cannot be claimed. All benchmark calculations in this credit are based on the mass of steel in the building.

Credit 20.1:

Responsible Building Materials - Structural & Reinforcing Steel

20.1 CREDIT CRITERIA

1 POINT IS AVAILABLE WHERE:

- 95% of the building's steel (by mass) is sourced from a Responsible Steel Maker.

AND - FOR CONCRETE FRAMED BUILDINGS:

- 60% (by mass) of all reinforcing bar and mesh supplied to the project holds Environmental Choice EC-41-15 certification.

OR

- At least 60% (by mass) of all reinforcing bar and mesh is produced using energy reducing processed in its manufacture (measured by average mass by steel maker annually).

WHAT IS A RESPONSIBLE STEEL MAKERS?

Responsible Steel Makers must show that they comply with the following initiatives:

1 The steel making facilities where the reinforcing steel for the project is sourced have a currently valid and certified ISO 14001 Environmental Management System (EMS) in place. Valid ISO 14001 Environmental Management System (EMS) certificates must be provided from the steel making facilities where the reinforcing steels in the project were produced.

2 The steel maker supplying the steel is a member of the World Steel Association's (WSA) Climate Action Programme (CAP). A current CAP certificate from the WSA, confirming that the steel maker is a member of the CAP, must be provided.

HOW DOES PACIFIC STEEL COMPLY WITH CREDIT 20.1?



Pacific Steel qualify as a Responsible Steel Maker by:

- Holding a valid ISO 14001 Environmental Management System (EMS) certification; and,
- Being members of the World Steel Association's (WSA) Climate Action Programme (CAP).



Pacific Steel achieves 'Environmental Choice' requirements by:

- Having our reinforcing steel products third party certified to the Environmental Choice EC-41-15 specification.

NOTE: Where the cost of structural and reinforcing steels is less than 1% of the Project Contract Value, or there are no new structural or reinforcing steels used in the project, this criterion is made 'Not Applicable'.

Credit 21.1: Sustainable Products

21.1 CREDIT CRITERIA

UP TO 3 POINTS ARE AVAILABLE 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 transparency and sustainability initiatives. This is demonstrated by calculating the **Project Sustainability Value (PSV)** and comparing it with the **Project Contract Value (PCV)**.

HOW DO YOU CALCULATE THE PROJECT SUSTAINABILITY VALUE (PSV)?

To calculate the sustainability value that an individual product can contribute towards points in this credit, the dollar cost of the product must be multiplied by a **Sustainability Factor (SF)** that reflects the weighted benefit of the initiative. The projects' overall Project Sustainability Value is then calculated as the combined sustainability value for all compliant products on the project.

Individual Product Sustainability Value = Product Cost (\$) x Sustainability Factor (SF)

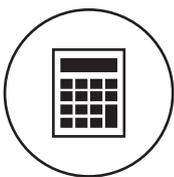
Project Sustainability Value (PSV) = Sum of all Product Sustainability Values



Pacific Steel 'SEISMIC®' products are eligible for the below Sustainability Factors:

- Level A Third party certified to the Environmental Choice EC-41-15 specification - **1.0**
- Product specific Environmental Product Declaration (EPD) - **0.75**

NOTE: 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 SEISMIC® would therefore apply the SF relating to the ECNZ certification.



The New Zealand Green Building Council have a Sustainability Products Calculator on their website which can help you quickly determine your overall Project Sustainability Value (PSV) as well as what points can be awarded to your project.

Visit www.nzgbc.org.nz for more information.

NOTE: Users of this document must make their own assessment of the products/processes for their own conditions and purposes. All queries regarding product or applications should be directed to Pacific Steel (NZ) Limited, phone 0800 7227 8335. SEISMIC® is a registered trademarks of Pacific Steel (NZ) Limited.

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