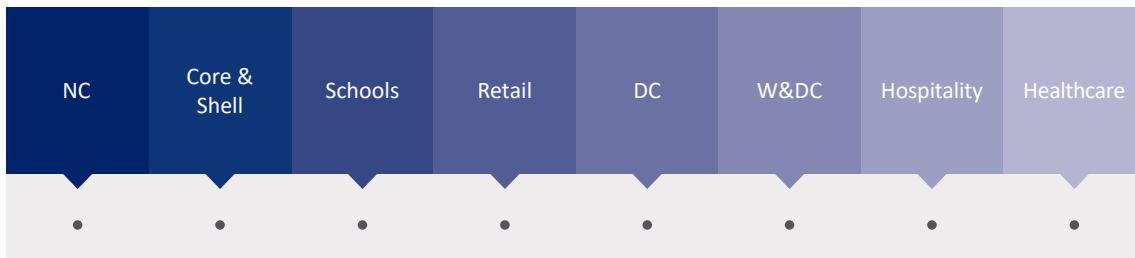




LEED CATEGORY MATERIALS AND RESOURCES

1-6
points

REDUCTION OF THE IMPACT OF THE LIFE CYCLE OF THE BUILDING



OBJECTIVE

Reduction of the impact of the life cycle of the building

Promote the use and re-use of materials with less impact on the environment.

ASSESSMENT PROCEDURE

Option 2: Renovation of Abandoned or Ruined Buildings (5 points BD&C, 6 points Core and Shell)

Maintain at least 50% per gross constructed area of the structure, enclosure and internal structural elements of the existing building for buildings that comply with the local criteria for abandoned buildings, or are considered to be in ruins. The building must be renovated to a state of productive occupation. 25% of the surface area of the building can be excluded from the credits calculation due to deterioration or damage.

Option 4: Analysis of the life cycle of the building (1-4 points)

For new constructions (buildings or parts of buildings, carry out the LCA (Life Cycle Analysis) of the enclosure and structure of the building and select one or more of the following options to obtain up to 4 points:

- Carry out an evaluation of the life cycle of the structure and enclosure of the project (1 point).
- Carry out a life cycle assessment of the structure and enclosure of the project that demonstrates a minimum reduction of 5% compared with a reference construction in at least three of the six impact categories listed below, one of which must be the global warming potential. (2 Points)
- Carry out a life cycle assessment of the structure and enclosure of the project that demonstrates a minimum reduction of 10% compared with a reference construction in at least three of the six impact categories listed below, one of which must be the global warming potential. (3 Points)
- Carry out a life cycle assessment of the structure and enclosure of the project that demonstrates a minimum reduction of 10% compared with a reference construction in at least two of the six impact categories listed below, and a reduction of at least 20% in the global warming potential. As well as incorporating re-used and/or recuperated materials in the structure and enclosure of the project for the proposed design. (4 Points).

Impact categories to reduce:

- Global warming potential (CO2 eq.)
- Destruction of the stratospheric ozone layer (kg of CFC-11)
- Acidification of the soil and water sources (moles H + or kg SO2)
- Eutrophication
- Tropospheric ozone formation (kg of NO or kg of C2H4)
- Depletion of non-renewable energy sources (MJ)

None of the impact categories evaluated within the LCA may increase by more than 5% compared to the reference building. A description must be included explaining how the evaluation of the life cycle was carried out. Furthermore, the reference building and the proposed building must be of a similar size, function and orientation. The service life cycle must be the same, and must be at least 60 years. Furthermore, the calculation software must be the same, and the data

must comply with ISO 14044.

COMPLIANCE WITH THE REQUIREMENTS

The CUPACLAD® raincladding system can help to achieve the points for this credit in two ways:

- The CUPACLAD® raincladding system can be installed on existing structures, it can be adapted to any architectural projects, whether new-builds or restorations or renovations. The system serves to renovate abandoned or ruined buildings, maintaining at least 50% of the existing structure.
- The CUPACLAD® raincladding system is in the process of renewing an EDP in accordance with EN 15804 based on an LCA in accordance with ISO 14044. The information from this LCA can be used to carry out the LCA of the reference building.

REFERENCE STANDARD

- ASHRAE 90.1-2010 (reference building)
- EN 15804
- ISO 14025

ADDITIONAL DOCUMENTATION

- EDP of the CUPACLAD® system.
- EDP of the screws.
- Datasheets: <https://www.cupapizarras.com/es/cupaclad/>

Notes

1. The information contained in this document corresponds to a study into the possibility of fulfilling the credits for LEED environmental certification according to the information provided by the company. This document does not constitute a certification of the product, nor does it guarantee compliance with local applicable laws.
2. Obtaining the percentage of impact reduction, or the points for the certification, depends on actions across all of the materials and products used in the construction of the building to be certified.
3. The conclusions of this study apply only to the products mentioned in this report and are subject to the technical conditions of the product remaining the same, as well as the requirements of the environmental certifications systems that are the subject of the study.
4. This document gives information on the possible contribution of the products studied towards obtaining the LEED certificates. However, the final decision as to whether or not a product complies with the LEED certification is exclusively down to the GBCI (Green Business Certification Inc).