



## What qualifies and certifies the LEED

*Leadership in Energy and Environmental Design*



**Geoplast S.p.A. is an ordinary member of the Green Building Council Italy**

LEED standards (Leadership in Energy and Environmental Design), that have been developed in the United States and applied in 40 countries around the world, represent the parameters for sustainable construction.

The LEED standards, developed by the US GBC with the collaboration of companies and researchers from Universities in United States and Canada, indicate the requirements for building eco-friendly buildings, capable of "functioning" in a sustainable and self-sufficient manner in terms of energy; in short, it is a rating system (Green Building Rating System) for the development of "green" buildings. The organization that defines and promotes the LEED standard is the US Green Building Council, a non-profit association established in 1993 that has more than a thousand members today. In addition to its "technical" role, the USGBC also has the task of informing, raising awareness and guiding the community towards sustainable building.

LEED is a flexible and structured system that provides differentiated formulations for new buildings (NC, New construction and major renovations), existing buildings (EB, Existing Buildings), schools (LEED for Schools), small houses (LEED Homes), while maintaining a general approach in line with various areas.

The system is based on the assignment of credits for each of the requirements that refer to the sustainability of the building. From the sum of the scores of credits derives the level of certification obtained.

The criteria are grouped into six categories, which include mandatory and prescriptive prerequisites and a number of environmental performances, which together define the final score of the building:

**Sustainable sites** (1 prerequisite - 14 points): LEED certified buildings must be built on the basis of a disposal plan that reduces the production of waste and uses recycled or locally produced material.

**Efficient water management** (5 points): the presence of rainwater recovery systems or taps with flow regulators must guarantee maximum efficiency in water consumption.

**Energy and atmosphere** (3 prerequisites, 17 points): By making use of the energy from renewable and local sources in the best way, it is possible to significantly reduce the energy bill of buildings. In the United States, every year, LEED buildings release less than 350 metric tons of carbon dioxide into the atmosphere in comparison with other buildings, guaranteeing electricity savings of around 32%.

**Materials and resources** (1 prerequisite, 13 points): Buildings built with the use of natural, renewable and local materials, such as wood, obtain a higher score in the LEED evaluation system.

**Quality of interior environments** (2 prerequisites, 15 points): The interior spaces of the building must be designed in such a way as to allow a substantial parity in the energy balance and promote the maximum living comfort for the end user.

**Design and innovation** (5 points): The use of construction technologies that are better than best practices represents an element of added value, for the purposes of LEED certification.

By adding up the credits obtained within each of the six categories, a particular level of certification is obtained, whereas the achieved performance of the building is certified in terms of environmental sustainability. The LEED certification is divided into:

- **Basic** Certification (Certified/26-32 points)
- **Silver** Certification (Silver/33-38 points)
- **Gold** Certification (Gold/39-51 points)
- **Platinum** Certification (Platinum/52 and 69 points).

Addressing the whole process (from design to actual construction) and every part of the building, the LEED opts for a holistic view of sustainability by taking advantage of every possibility to reduce environmental impacts of various kinds and harmful emissions from buildings under construction. This is how the "best practices" are identified and defined for engineers, architects, professionals and the entire community in the sector, with an aim to become guidelines in third-party certification.

**The competitive advantages** for those who adopt the LEED standards, whether they are professionals or companies, are above all identified through a certification by a third party, that is deemed to be fundamental for obtaining success on the market.

Indeed, the LEED certification provides the market with a shared definition, a common goal and a measurable standard. It is a voluntary standard, adopted by the market by a process of consensus creation.

Therefore we can say that the LEED represents a kind of construction informative label that is similar to a nutrition label for all types of foods, with the indication of ingredients, calories, fats, etc. The purpose is to have the same detailed information also for buildings, whose value is usually estimated at hundreds of thousands of euros. In the case of LEED certified buildings, the assessment method itself provides detailed information: the aggregation of LEED key-area criteria (see areas indicated in the table) allows the identification of buildings with excellent performance.

According to the guidelines shared by all members of the international LEED community **GBC Italy** has the task to develop the characteristics of the LEED system in Italy, which must take into account the specific climatic, building and regulatory conditions of our country.

Currently, the GBC Italia has adopted the LEED Rating System that is used in the United States, while waiting - with the support of the Trentino Technological District Consortium, the companies and the University of Trento - for the process of translation and transposition of LEED content in the national reality to be concluded.

In this context, the introduction of LEED Accredited Professional, specialized professionals whose task is to guide the planning team that shall be working on the compatibility of each project or building, according to the LEED parameters, is also planned in Italy. Starting from 2001, when the USGBC launched the Professional Accreditation program, it is estimated that around 40,000 professionals have received the title of LEED AP.

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