



EPD & GREEN BUILDING

EVOCELL
& MOBIUS



IT-FLEX C1

IT-FLEX C1: GREEN BUILDING AND CERTIFICATION SYSTEMS

Evocell&Mobius has always linked its name and products with quality and technologies that respect the environment.

Sustainability, energy saving and reduced impact of emissions have now become key points of construction products.

Sustainable construction, universally called Green Building, is an innovative approach that developed a few decades ago, but which today represents one of the cornerstones of construction on the world scene.

When we talk about green building, we refer not only to energy saving but also to a whole series of concepts such as reduction of polluting emissions, thermal, acoustic and air wellness. Furthermore, the provisions with which these buildings are built are no less secondary: control and reduction of environmental impacts, sustainability of construction sites, accessibility and comfort of buildings and recyclable material used inside them.

Over the years it has been developed several certification protocols. The aim is to measure the energy and environmental performance of buildings through a series of parameters in order to classify the sustainability of the building by giving them a rating. Here are the most important ones.



ENVIRONMENTAL CERTIFICATION PROTOCOLS

Standard of Certification	BREEAM 	LEED 
	Building Research Establishment Environmental Assessment Method	Leadership in Energy and Environmental Design
Foundation	1990, Building Research Establishment (Bre)	1998, U.S. Green Building Council (USGBC)
Protocol Specifications	It defines a set of principles and requirements which affect the entire life cycle of the building under examination (from design to disposal)	It's a voluntary protocol based on points attribution that state the performance qualities of the building
Assessment Parameters	<ul style="list-style-type: none"> - Management - Health and Wellness - Energy - Transportation - Water - Minerals - Waste Management - Land Use And Ecology - Pollution 	<ul style="list-style-type: none"> - Integrative process - Location of transport - Sustainable sites - Water Management - Energy and atmosphere - Materials and resources - Internal environmental quality - Innovation - Regional priority
Scoring Scale		

Adherence to one of these certification protocols allows the construction of a building towards the established sustainability objectives.

The insulating material of **Evocell&Mobius** plays an important role in a building, which contributes with its technical characteristics to saving energy, improving plant efficiency and protecting surfaces from corrosion and attack of microbes and molds. It also plays a key role to the prevention of CO₂ emissions and to energy and economic savings.

IT-FLEX C1 & EPD DECLARATION

EvoCell&Mobius has raised the range of **IT-FLEX C1** products by presenting the Environmental Product Declaration - EPD through which the company transparently communicates the quality of the data regarding its production processes and how they impact the environment.

The Environmental Product Declaration (EPD) is a document prepared voluntarily according to international standards (ISO 14025) and describes the environmental impacts of **IT-FLEX C1** products during its life cycle (LCA).

The Life Cycle Assessment (LCA) examines the environmental impacts of the product itself during all its phases:

- Extraction of raw materials
- Transport to the production site
- Production, packaging and waste cycle
- Transport of the finished product to the distributor
- Final disposal



To achieve the results contained in the EPD document, the analysis involves a series of 4 phases as follows:

- 1 Definition of objectives and field of application (definition of the system considered, definition of the functional unit, types of impacts to be considered in the analysis of the system).
- 2 Inventory, data collection and calculation method for the evaluation of incoming and outgoing flows of the system.
- 3 Impact assessment and analysis, aimed at highlighting the environmental changes due to resource consumption and emissions into the atmosphere caused by the system.
- 4 Interpretation of the results, allows to draw conclusions and suggest variations or improvements in order to minimize the impacts associated with the system.

The mapping of the production process resulting from the LCA study highlights the critical, energy and environmental points so as to subject them to improvement.

The objective of the EPD certification is not the comparison between products of the same category, or the achievement of environmental targets, but to provide the knowledge necessary for:

- Reduce the environmental impacts associated with the product;
- Develop the use of eco-compatible technologies and materials;
- Direct corporate strategies towards the design of more sustainable alternative products and processes;
- Reduce the costs deriving from the management of production phases.

The EPD study was carried out on 1 m³ of **IT-FLEX C1** elastomeric foam material for thermal insulation.

System boundaries

The analysis of the impacts of the **IT-FLEX C1** products was carried out “From cradle to gate” and consists of the elements from the following list:

- Extraction of raw materials
- Transportation of raw materials to the company;
- Production process for semi-finished and finished products;
- Energy consumption attributable to production;
- Waste disposal and production waste recycling.

40 DAYS

The energy impact deriving from **IT-FLEX C1** production is amortised after only 40 days from the installation and use of the product.

CO₂

Over the course of 25 years the detectable benefit corresponds to the CO₂ absorption of 13 hectares of forest in an urban context over a period of 1 year (About 60,000 Kg).



40 YEARS

Energy savings correspond to the average energy consumption of a family in 40 years (27,000 MJ).

1.000.000 MJ

It allows for a saving of approximately 40,000 MJ per year for heating water in homes. In 25 years, total savings reach approximately 1,000,000 MJ.

REUSE OF MATERIALS:

Every year the correct management of waste during the production process allows the reuse of a large quantity of the insulating material, destined for disposal, for the production of **Evosound OC** for sound absorption.



BREEAM & LEED MAPPING - IT-FLEX C1

The BREEAM and LEED protocols for their characteristic do not certify the nature of the product used in construction but certify the building on the basis of a series of well-defined classifications. For this reason, a careful analysis of the technical and performance characteristics of the **IT-FLEX C1** product was carried out which allowed our specialized technicians to issue a document summarizing credits and scores with which **IT-FLEX C1** contributes to the certification of the building that follows the LEED or BREEAM protocol. This document is referred to in technical jargon as “BREEAM or LEED mapping”. Below we summarize the maximum score that **IT-FLEX C1** products can achieve within the building certification.

BREEAM

IT-FLEX C1 can contribute, together with other materials, to obtaining 8 credits for a total of 40 points.

By multiplying the points obtained from each credit by the relative weighting percentage of each category, the contribution percentage of the credits to the certification can be obtained.



LEED

IT-FLEX C1 contributes to obtain a prerequisite and 4 credits. These can score a maximum of 21 points.



To view the BREEAM or LEED mapping in detail, please consult the “Documentation” page for the **IT-FLEX C1** brand, available on our website www.evocellmobius.it.



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