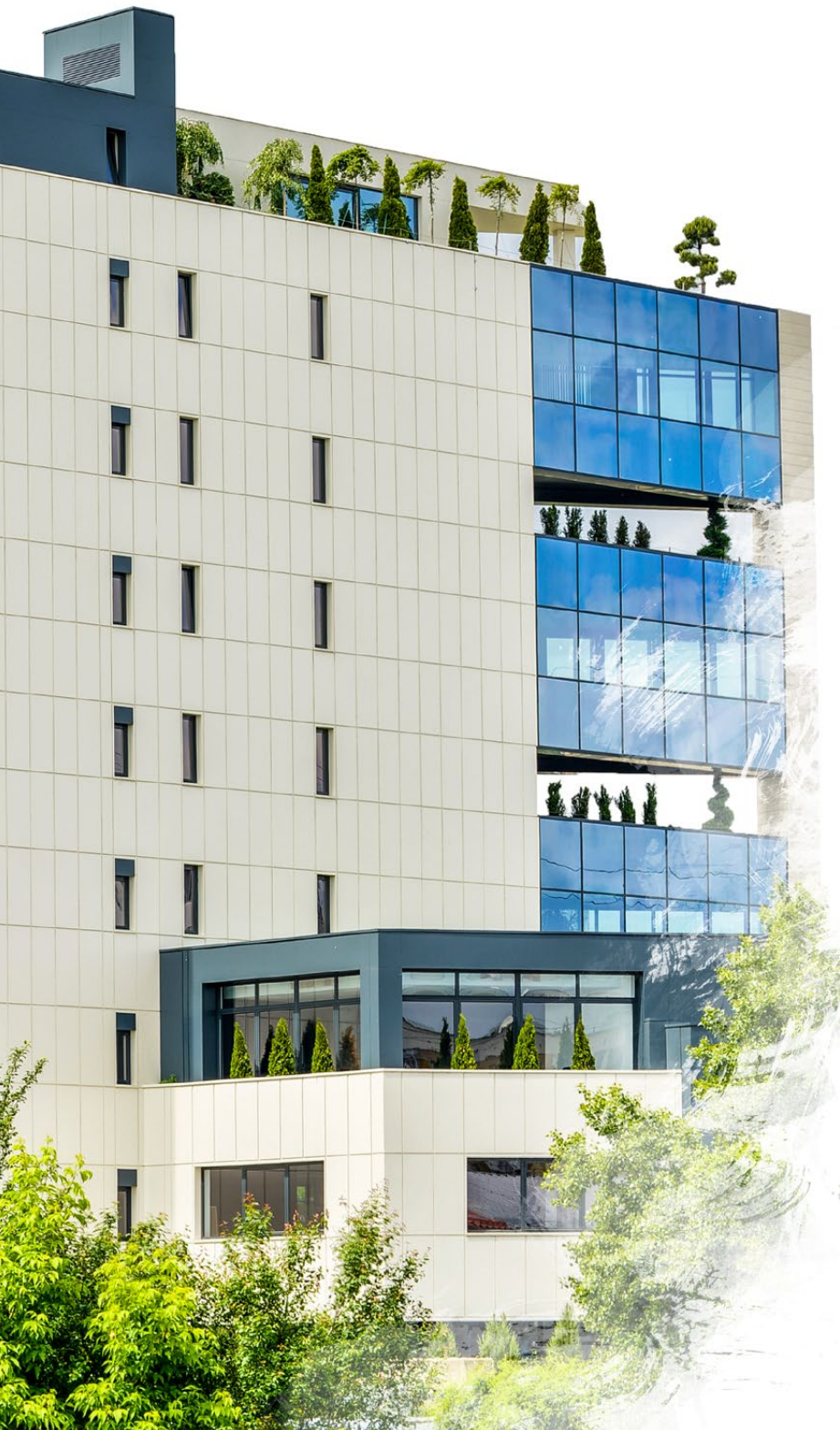
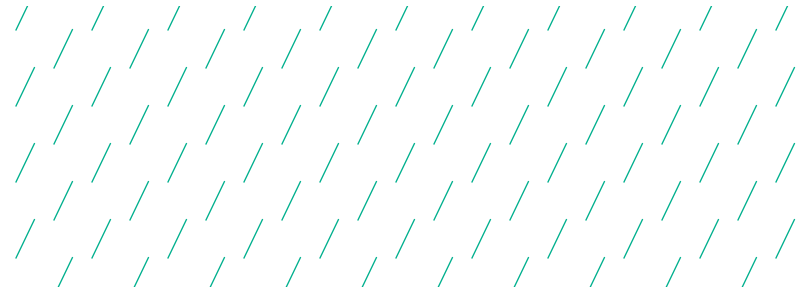


/ We **care**
about the
environment



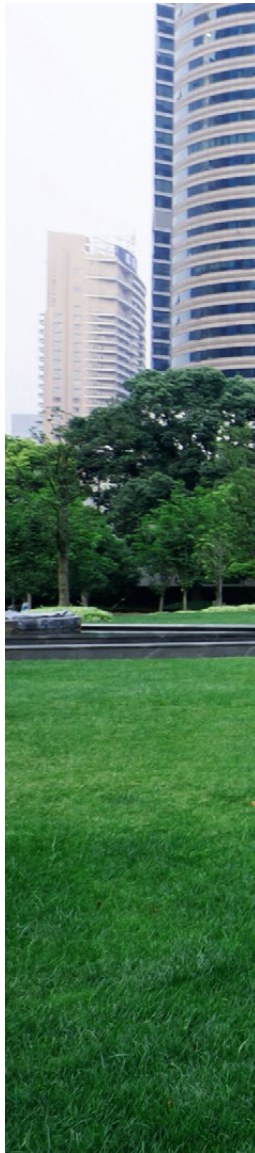
 **EREM**





Sustainability & Responsibility

We care
about
the environment





Who we are?

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ETEM is one of the European leaders in aluminium extrusion. The company was founded in 1971 and it is the first integrated designer and producer of architectural systems and aluminium profiles for industrial applications in Greece.

With the production facilities in Bulgaria and Greece, ETEM guarantees continuous, prompt, effective and uninterrupted delivery to all our customers. Through continuous innovation and investments in infrastructure, cutting-edge equipment and our people, ETEM is an international company with worldwide exports and presence.

ETEM holds a strong position in South-Eastern Europe and tirelessly pursues opportunities for penetration and establishment in more

countries and emerging markets. With competent structures and highly skilled people in place, the company meets the strategic goals to understand and cover the needs of each market, thus efficiently assisting our customers to achieve their business goals. The people offer numerous services to the customers, from training and technical assistance to individual constructors and installers of window and door frames, to complete project support throughout the various stages of a project.



From the birth of an idea, ETEM helps the individual, investor or developer to select the best product or solution to meet their requirements, in the most effective, supportive and cost-efficient of ways.

ETEM actively assists the architect or engineer to define the specifications of the project and can also offer technical support or training to the constructor and installer of company's complete product portfolio.

ETEM's main goal is to design and engineer products that help us improve our everyday living, whether in a residential, commercial or work environment.

The company remains loyal to its customers and keeps its promises for continuous innovation, tailor-made solutions, integrated assistance throughout a project, and strategic business thinking, ensuring the customers' commercial success.

More information about the company: www.etem.com

ETEM's main goal is to design and engineer products that help us improve our everyday living, whether in a residential, commercial or work environment.

Our production

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The modern equipment allows us to produce high-tech aluminium profiles, precisely matching the client's needs.

Our production plants are equipped with modern extrusion presses, producing a wide range of aluminium profiles for architectural systems, the automotive industry and other industrial applications.

We have vertical and horizontal lines for powder coating and as a QUALICOAT licensed company, we provide a full range of colour coatings at a very high quality.

Our products are subject to rigorous quality control and once they are ready to dispatch we offer a range of smart logistics solutions to ensure they get to you when you need them.

Lightweight aluminium has distinctive logistics advantages – each truck can carry up to three times as many aluminium parts as steel – allowing us to pass benefits to our customers in terms of

cost and environmental impact. Ensuring high quality standards – from raw materials, to finished product – is one of the ETEM founding principles. Diligent monitoring, active innovation and ongoing training ensure high standards are met and we strive, on an ongoing basis, to improve our processes and exceed expectations. The excellence we achieve inspires us to go further.

Our Quality Management System (ISO 9001, ISO 14001, EN 15088, OHSAS 18001, QUALICOAT) is tailored to the requirements of the aluminium industry, developed and enhanced year on year by a process of continuous improvement.



Testing is carried out on every product, both to the maximum industry standard, as well as additional bespoke testing and quality checks, as required by individual customers throughout the production process. Our goal is to create exceptional quality products that are economic and environmentally friendly throughout their lifespan.

Our products are subject to rigorous quality control and once they are ready to dispatch we offer a range of smart logistics solutions to ensure they get to you when you need them.

Environmental management system

A decorative pattern of diagonal lines in a light teal color, located to the right of the text 'management' and 'system'.





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The Environmental Management System of ETEM has been approved by Lloyd's Register Quality Assurance according to EN ISO 14001:2015.

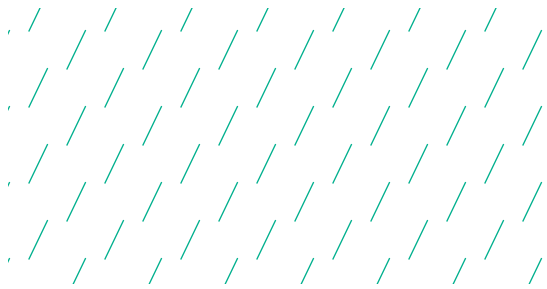
The established environmental management system allows ETEM to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability. Following the requirements of ISO 14001 helps ETEM achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself and interested parties.

Consistent with ETEM's environmental policy, the intended outcomes of an environmental management system include:

- / enhancement of environmental performance;
- / fulfilment of compliance obligations;
- / achievement of environmental objectives



What is EPD®





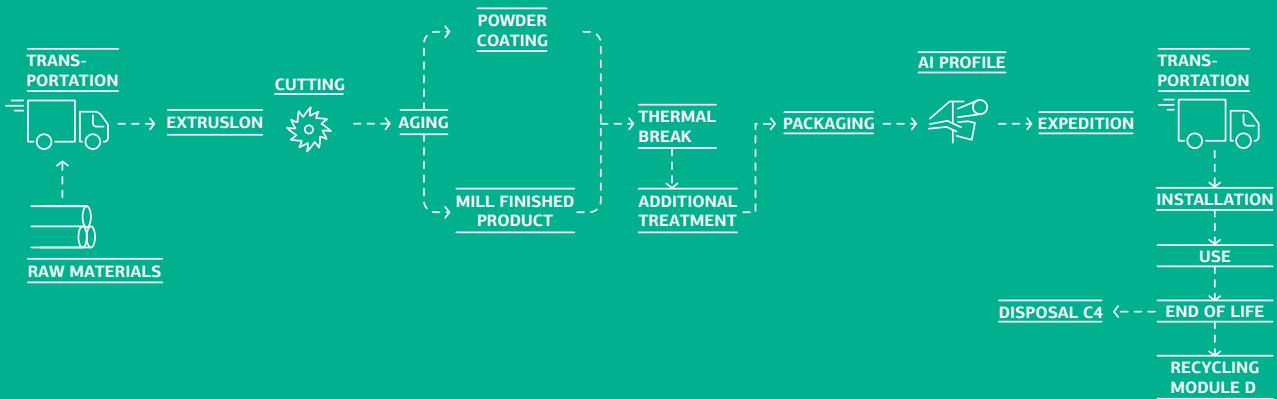


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An EPD® (Environmental Product Declaration) is an independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of products.

In life cycle assessment, an Environmental Product Declaration (EPD®) is a standardized way of quantifying the environmental impact of a product or system. Declarations include information on the environmental impact of raw material acquisition, energy use and efficiency, content of materials and chemical substances, emissions to air, soil and water and waste generation.

ETEM’s EPD scope of assessment: “cradle-to-gate with options”



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EPD® in the Construction Products Regulation (CPR) EU 2011/305:

For the assessment of the sustainable use of resources and of the impact of construction works on the environment Environmental Product Declarations should be used when available.

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ETEM’s Environmental Product Declaration (EPD®):

The Life Cycle Assessment (LCA) for ETEM’s EPD® is conducted according to the guidelines of ISO 14040 and ISO 14044 and the requirements given in the Product Category Rules (PCR) document for

Construction Products and Construction Services with reference to EN 15804 and the general program guidelines by The International EPD® System in accordance with ISO 14025 standards.

Phases:

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Raw Material Supply

Production starts with raw materials supply mainly. Some of the raw materials are locally sourced while others are transported from different countries in Europe.

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Transportation

Transport is relevant for delivery of raw materials to the gate of ETEM plant, internally between the production facilities, as well as transportation of wastes to the relevant treatment facilities.

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Manufacturing

Manufacturing processes include all the production activities within the plant with all the associated impacts. These include melting of aluminium billets, extrusion, cutting, aging, powder coating, thermal breaks, additional treatment (if necessary), packing and storage in the warehouse facilities.

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Disposal

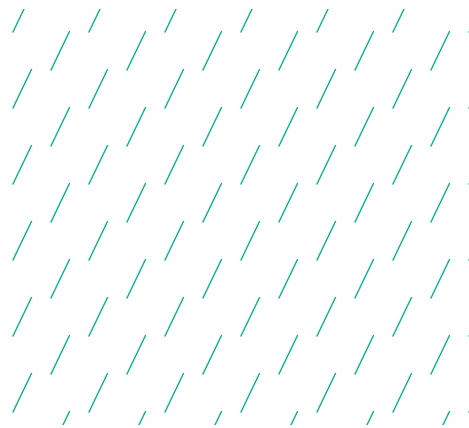
According to the European Aluminium Association as much as 90% of the aluminium for building applications is being recycled, while the rest 10% are being disposed/ landfilled. This module includes assessment of the environmental impacts associated with the disposal.

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Benefits and loads beyond the product system boundary

This phase consists of avoided burdens related to the potential reuse and/or recycling of the product after its end-of-life stage.

Sustainable buildings





Benefits of sustainable buildings:

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- / lower life cycle costs
- / lower insurance fees
- / higher value of the building
- / higher productivity
- / improved image
- / reduced risks
- / positive influence on the health of tenants and users
- / reduced effects on infrastructure, environment and local economic structures

MAIN ASSESSMENT SCHEMES FOR SUSTAINABLE BUILDINGS

Assessment scheme	Country of establishment*	Organization
LEED	United States of America	American Green Building Council www.usgbc.org
BREEAM	United Kingdom	British Green Building Council www.breeam.com
DGNB	Germany	German Green Building Council www.dgnb.de

* All assessment schemes could be applied internationally.

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LEED

LEED, or Leadership in Energy and Environmental Design, established by U.S. Green Building Council (USGBC), is a green certification program for building design, construction, operations and maintenance. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement.

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BREEAM

BREEAM is a rating system established by the British Building Establishment (BRE). It is an assessment method for master-planning projects, infrastructure and buildings. It recognises and reflects the value in higher performing assets across the built environment lifecycle, from new construction to in-use and refurbishment. BREEAM does this through third party certification of the assessment of an asset's environmental, social and economic sustainability performance.

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DGNB

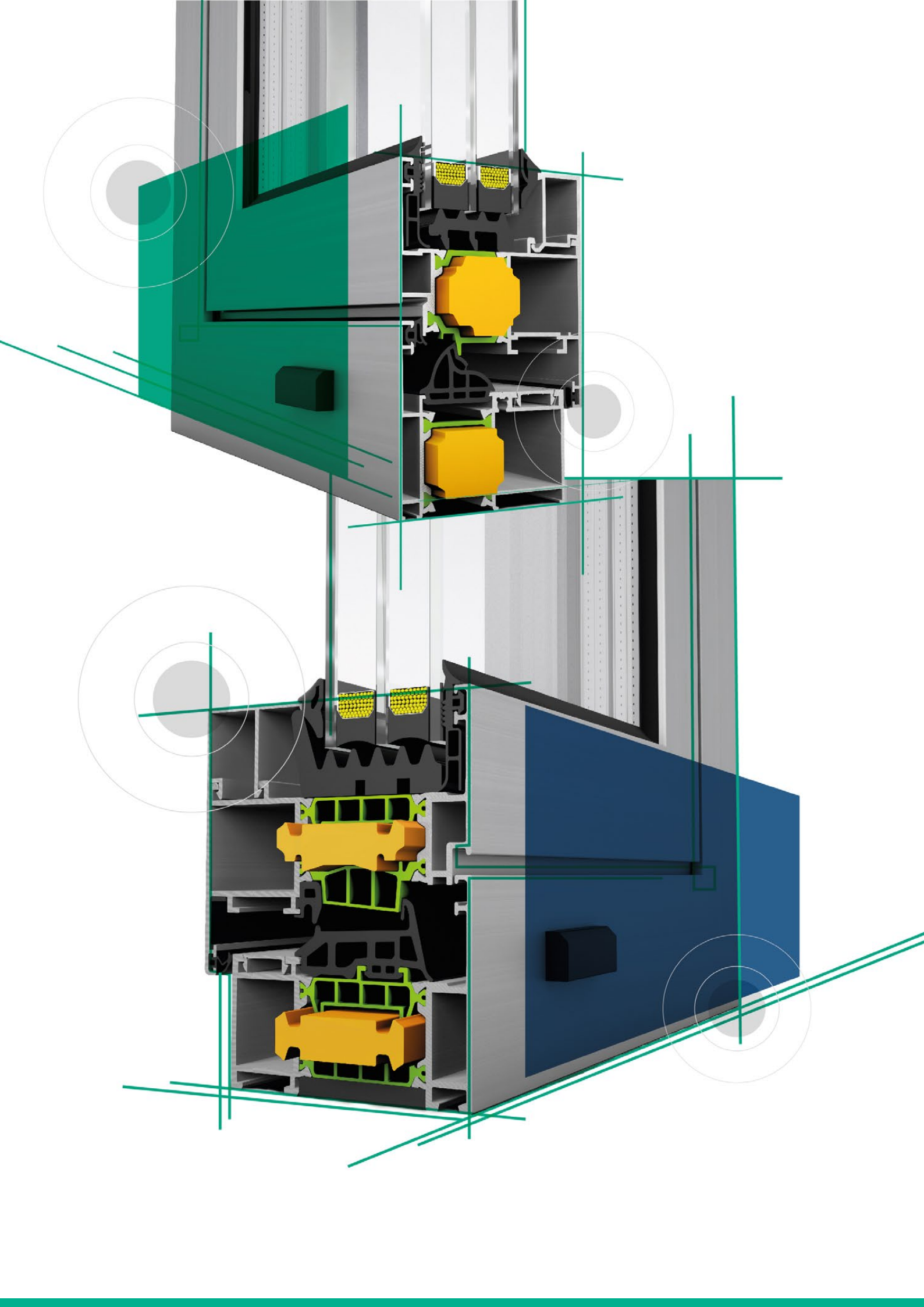
DGNB is a certification system established by the German Sustainable Building Council (DGNB). It provides an objective description and assessment of the sustainability of buildings and urban districts. Quality is assessed comprehensively over the entire life cycle of the building. Due to its flexibility it can be tailored precisely to various uses of a building and even to meet country-specific requirements.

ETEM architectural systems & LEED, BREEAM, DGNB

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ETEM architectural systems give you an advantage and possibility for gaining higher score according to the different assessment schemes for sustainable buildings - LEED, BREEAM, DGNB.

The assessment systems are relatively similar and cover more or less identical areas of the sustainable buildings for the assessment. The assessments are executed on the basis of a score system.



The following criteria for the three assessment systems are those with which the ETEM architectural systems could help for improving the building sustainable performance and thus gaining a higher score and evaluation of the building.

Criteria:

Materials and resources

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Certain materials, products and methods are hazardous to soil, air, ground and surface water as well as the health of humans, flora and fauna.

//

Advantages of ETEM architectural systems:

Recycled raw material

ETEM aluminium profiles are mainly made of 99.7% purity of aluminium ingots with a high content of recycled aluminium.

Recycled content

ETEM profiles consists of average 30% recycled content.

The average recycled content is formed by the following:

- Pre-consumer Recycled Content (% weight final product): Portion of material or product that is derived from recovered industrial and mfg. materials that are diverted from municipal solid waste for use in a different manufacturing process, prior to use by a consumer (e.g. aluminium scrap). Pre-consumer recycled content in ETEM profiles is 20%
- Post-consumer Recycled Content

(% weight final product):

Post-consumer - Portion of material or product that is derived from discarded consumer waste that has been recovered for use as a raw material (e.g. windows, doors, curtain walls).

Post-consumer recycled content in ETEM profiles is 10%

Regional materials

This criteria supports the use of local resources and in this way reducing the environmental impacts from transportation.

ETEM uses local raw materials extracted in the region thus minimizing the ecological footprint from transportation.

ETEM production plants are located in Bulgaria and Greece. Depending on the project location this could be beneficial for local projects near the manufacturing units.



No dangerous substances

No substances included in the Candidate List of Substances of Very High Concern for authorization under the REACH Regulations are present in the ETEM profiles, either above the threshold for registration with the European Chemicals Agency or above 0,1% (wt/wt).

Environmental Product Declaration (EPD®)

ETEM EPD® gives competitive advantage for achieving more points according to every assessment scheme for sustainable buildings.

In this relation a consideration of their entire life cycle including manufacture, manufacture and processing on the building site, use in the building, and their end-of-life including demolition, recycling, and disposal. Risks to the local environment are considered in relation to materials and products used.

Criteria: Energy

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This criteria aims to reduce environmental and economic impacts associated with excessive energy use.

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Advantages of ETEM architectural systems:

Energy related characteristics such as U value and solar factor could be improved by using ETEM architectural systems for windows, doors, curtain walls. The holistic approach which ETEM uses at initial stage of the project ensures combination of the most appropriate materials for maximum energy performance of the building.



Criteria:

Indoor Environmental Quality

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Thermal comfort

Thermal comfort in buildings makes an important contribution to an efficient and performance-enhancing working and living environment. A room is deemed to be thermally comfortable if it is neither too cold nor too warm, the air neither too dry or too moist and there is no draught.

Advantages of ETEM architectural systems:

ETEM opening, sliding solutions ensure the good ventilation and gains of fresh air in the building and in this way increase the comfort, productivity and well-being of the inhabitants.

The weathertightness and thermal transmittance characteristics of ETEM systems are tested and verified by Notified Bodies according to EN 14351-1 and EN 13830, guaranteeing perfect levels of air permeability, watertightness, resistance to wind load, thermal insulation.

ETEM sun shading solutions also facilitate achieving excellent thermal comfort of the inhabitants.

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Acoustic comfort

The objective of the criteria is assurance of a suitable room acoustic quality in accordance with the respective use of the rooms. The room acoustic quality determines the acoustic comfort and it has a significant influence on the performance at the workspace.

Advantages of ETEM architectural systems:

The airborne sound insulation index R_w of ETEM architectural systems is tested by Notified Bodies according to EN ISO 717-1 including different types of infills. In this way the specifier could choose the best ETEM system at initial stage of the project knowing its acoustic performance which corresponds to the intended use and could guarantee appropriate levels of inhabitants' comfort.



Visual comfort

User satisfaction is closely linked to the user's sense of comfort. The supply of daylight to the interior plays a particularly significant role here. Natural light has a positive effect on people's physical and mental health.

Advantages of ETEM architectural systems:

ETEM architectural systems include variety of solutions which could help the building specifier to gain points using the following indicators which are part of the visual comfort criteria:

- availability of daylight throughout the building
- availability if daylight in work areas for regular use
- view to the outside

User control

Both the building's energy consumption and the productivity of people working in it are closely linked to the user's options to control the indoor climate.

Thermal comfort, indoor air quality, noise levels and lighting are important factors contributing to user satisfaction.

Advantages of ETEM architectural systems:

ETEM opening and sliding solutions could help gaining points by ensuring ventilation which indicator is taken into account by the user control criteria. Ventilation ensures that users benefit from an adequate supply of fresh air.

ETEM sun shading solutions are also advantage for the criteria by preventing the building overheating by reflection and allowing influence by the user.

Criteria: Innovation*

* only according to LEED

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The aim of the innovation criteria (including design) is to provide design teams the opportunity to achieve exceptional performance above the preliminary sustainable requirements.

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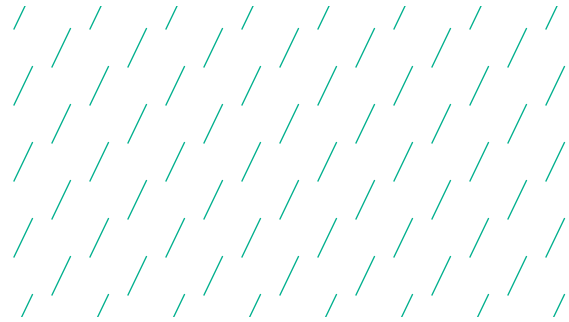
Advantages of ETEM architectural systems:

The main mission of ETEM is to design and manufacture state-of-the-art products sustainable enough to improve the environment and the living conditions in the building.

The R&D team of ETEM support our customers with innovative engineering and design of conventional as well as bespoke architectural system solutions tailor made



Reference projects





certified according to

LEED

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/ EXPO-2000 Office building

- E66 / sun shading system /
- Ventilated façade systems

/ The English-American School of Sofia

- E85 / curtain wall system /
- E75 / system for windows and doors /
- E45 / system for windows and doors /
- E66 / sun shading system /

/ Space Tower Office building

- FORTE / ventilated façade system /
- VARIO / ventilated façade system /
- etalbond® / composite aluminium material /

/ Polygraphia Business centre

- VARIO / ventilated façade system /
- E66 / sun shading system /

/ Project Real Site

- E85 / curtain wall system /
- E75 / system for windows and doors /

/ Muzeiko

- VARIO / ventilated façade system /

certified according to

BREEAM

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/ Business Centre Eurohold

- E85 / curtain wall system /
- E45 / system for windows and doors /
- E1000 / system for windows and doors /

/ Capital Fort –Office Tower

- E99 / unitised façade system /
- ENF™ / aluminium sheets /

/ Building 1 in TCE

- E45 / system for windows and doors /
- ENF™ / aluminium sheets /

/ San Stefano Plaza

- Ventilated façade systems
- E66 / sun shading system /

