



LEED profile EJOT® Self-tapping screws

## Information brochure for "Leadership in Energy and Environmental Design" (LEED)



28195 Bremen

sustainability consultants

### brands & values GmbH Altenwall 14

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## Structure of the document

This document contains the data on a building material / building product that are relevant for the LEED system. It is primarily intended to support planners and architects in obtaining the product information required for their purposes with a reasonable amount of effort.

Within the framework of an assessment, product characteristics are placed in the context of the LEED assessment. For this purpose, applicable individual criteria are identified and transferred to the building level. In this way, the potentially achievable LEED points are determined.

LEED version:

LEED certification system, Building Design and Construction (BD+C) in the version 4.1.

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Validity 13.01.2027

#### Legal notice:

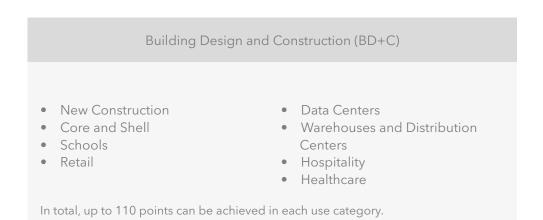
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## **1** General information

The Leadership in Energy and Environmental Design (LEED) certification system serves to objectively describe and evaluate the sustainability of buildings and neighbourhoods. It was developed by the non-profit organisation USGBC (U.S. Green Building Council). The entire LEED certification is based on the US American standards according to ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.). Quality is assessed in a comprehensive sense, over the entire life cycle of the building. The LEED certification system is internationally applicable. Due to its flexibility, it can be applied precisely to different building uses.

## Types and categories of use

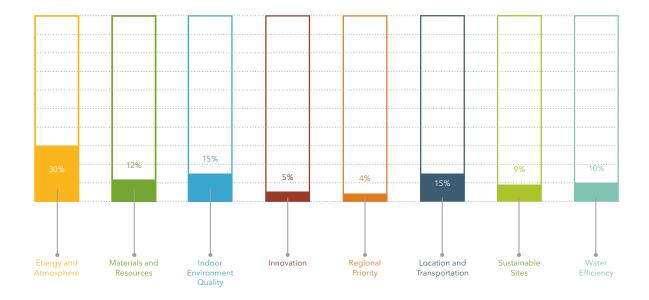
The following types and categories of use according to LEED v4.1 are covered by this profile:



## **Evaluation categories and their weighting**

The usage type "Building Design and Construction (BD+C)" includes the category "New Construction" with the following rating categories:

- Integrative Process
   1 Point
- Location and Transportation 16 Points
- Sustainable Sites
   10 Points
- Water Efficiency
   11 Points
- Energy and Atmosphere 33 Points
- Materials and Resources (MR)
  Indoor Environmental Quality (EQ)
  Innovation
  Regional Priority
  4 Points

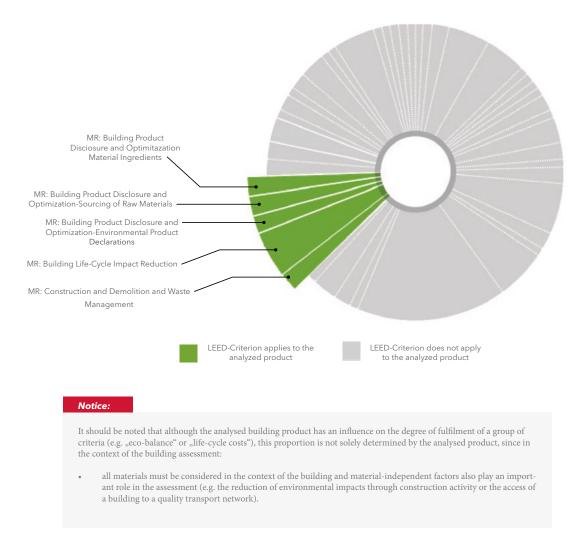


This results in the following weighting for the category "New Construction (NC)":

Each of the listed assessment categories is subdivided into several individual criteria, through the fulfilment of which the total points of an assessment category can be achieved. There are also individual criteria that form the prerequisite for the award of a LEED certificate. The "Materials and Resources" (MR) rating category is subdivided as follows:

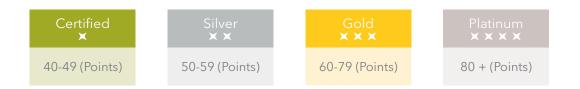
| 0 | 0 | 0 |        | Material and Resources (MR)   | 13       |
|---|---|---|--------|---|----------|
| Y |   |   | Prereq | Storage and Collection of Recyclables   | Required |
| Y |   |   | Prereq | Construction and Demolition Waste<br>Management Panning                                 | Required |
|   | • |   | Credit | Building Life-Cycle Impact Reduction  | 5        |
| • | • |   | Credit | Building Product Disclosure and<br>Optimization - Environmental Product<br>Declarations | 2        |
|   | • |   | Credit | Building Product Disclosure and<br>Optimization - Sourcing of Raw Materials             | 2        |
|   | • |   | Credit | Building Product Disclosure and<br>Optimization - Material Ingredients                  | 2        |
|   | • |   | Credit | Construction and Demolition Waste<br>Management   | 2        |

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## **LEED certification levels**

Based on currently (100+10 bonus) possible points, the LEED rating process awards the following certification levels:



The LEED certification of a building is a high-profile expression of its ecological value, which is particularly evident to investors, tenants and residents. Sustainable buildings protect the environment and natural resources. They often have significantly lower operating costs, create more living comfort and increase the overall value of a property. Option 4

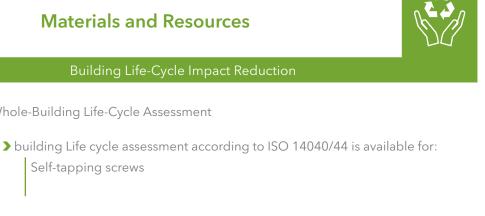
## **2** Result overview

### Influence on the LEED criteria

## **Materials and Resources**

Whole-Building Life-Cycle Assessment

Self-tapping screws



| Building Product Disclosure and Optimization - Environmental Product Declarations |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Option 1  | Environmental Product Declaration (EPD):<br>> Product-specific EPD, Type III<br>> Assessment as a whole product   |  |  |  |  |  |
| Building Product Disclosure and Optimization - Material Ingredients               |   |  |  |  |  |  |
| Option 2  | <ul> <li>Material Ingredient Optimization</li> <li>International Alternative Compliance Path - REACH Optimization:<br/>No substances are contained that meet the REACH criteria for Substances of<br/>Very High Concern</li> <li>Note: SVHC &lt;0,1 % fulfilled according to REACH, a check according to LEED</li> </ul>  |  |  |  |  |  |
|   | for %0,01 (100 ppm) is not available.<br>Fastening solutions for external thermal insulation composite systems under this<br>credit Health Product Declaration (HPD) > not available<br>Material Safety Data Sheet (MSDS) > MSDS is available on request<br>GreenScreen v.1.2 Benchmark > no<br>REACH compliance > yes . The formulation is tested according to the current<br>REACH list of candidates. The formulation does not contain any substances of<br>concern. Certificates are available on request |  |  |  |  |  |

| Building Product Disclosure and Optimization - Sourcing of Raw Materials |   |  |  |  |
|--|---|--|--|--|
| Option 1   | Participation in an extended producer responsibility programme<br>> no  |  |  |  |
| Construction and Demolition Waste Management                             |   |  |  |  |
| Option 2   | Reduction of the total amount (construction and demolition) waste material<br>> 1kg recyclable units in 1kg collected stainless steel |  |  |  |

# **3 Detailed evaluation**

### Influence on the LEED criteria

## **Materials and Resources**



Building Life-Cycle Impact Reduction

#### **Option 4: Whole-Building Life-Cycle Assessment**

For new buildings (buildings or sections of buildings), the structure and shell of a project must be subjected to a life cycle assessment, demonstrating that a reduction of at least 10% has been achieved compared to a reference building in at least three of the six impact categories (one of which must be global warming potential). In no impact category assessed in the life cycle assessment may an increase of more than 5 % be achieved compared to the reference building.

Prerequisite for this: Life cycle assessments of the building products actually used:

A manufacturer's own EPD in accordance with EN is available15804 for:

Self-tapping screws

> The ecological life cycle analysis is supported at building level on the basis of verified life cycle assessment results according to ISO 14040/44.

### Building Product Disclosure and Optimization (Environmental Product Declarations)

### **Option 1: Environmental Product Declaration (EPD)**

Product-specific EPD, type III:

| Source        | EPD-EJO-20210153-IBK1-EN1-DE  |  |  |  |
|---------------|---|--|--|--|
| Product       | Self-tapping screws   |  |  |  |
| Declared Unit | The declared unit is 1 kg average self-tapping screws made of stainless steel as a "worst case" |  |  |  |

Standards: ISO 14025 and 14040/44, as well as EN 15804

> Product is weighted at 100%

### Building Product Disclosure and Optimization - Material Ingredients

#### **Option 2: Material Ingredient Optimization**

International Alternative Compliance Path - REACH optimisation:

The product does not contain any ingredients that are listed in the list of substances subject to authorisation or in the REACH candidate list. Certificates are available on request.

- > Note: SVHC <0,1 % fulfilled according to REACH, a review according to LEED on 0,01% (100 ppm) is not available.
- > Health Product Declaration (HPD): Not available
- > Safety Data Sheet (MSDS): Will be provided on request.

> European Technical Assessments as well as General Building Inspectorate Test Certificates are available on request.

Building Product Disclosure and Optimization - Sourcing of Raw Materials

Option 1: Participates in an extended producer responsibility program > No

Postconsumer recycled content:

- >67% steel scrap
- Preconsumer recycled content
- > not present

### Construction and Demolition Waste Management

#### **Option 2: Reduction of Total Waste Material**

Do not generate more than 7.5 pounds of construction waste per square foot (36.6 kilograms of waste per square meter) of the building's floor area for all BD+C projects except Warehouses and Distribution Centers.

> The self-tapping screws can be disposed of separately (by appropriate dismantling) or directly with the installed elements during demolition. These are fed into the recycling process in accordance with the applicable disposal guidelines.

> It is assumed that for one kilogram of self-tapping screws, 0.97 kg are recycled and 0.03 kg are landfilled

## **4** Life Cycle Information

The product life cycle is mapped and evaluated via a life cycle assessment:



| EPD-Standard                    | EN 15804; ISO 14025  |
|---------------------------------|--|
| Programme holder                | Institut Bauen und Umwelt e.V. (IBU)   |
| Declaration number              | EPD-EJO-20210153-IBK1-EN   |
| Valid until                     | 13.01.2027   |
| Declared unit                   | 1 kg average self-tapping screws made of stainless steel<br>as a "worst case"  |
| Specific weight                 | 0,02-0,2 kg/ m²  |
| Transport and product packaging | Cardboard/paper (EAK 15 01 01) and polyethylene bags<br>(EAK 15 01 02) are used for packaging. Waste products:<br>Packaging materials are disposed of by INTERSEROH.<br>For large orders, the screws are shipped on returnable or<br>disposable pallets. |
| Production                      | The cold or hot extrusion process on a multi-stage press.  |

Further product and site-specific information can be found in the EPD.

The EPD data have been published on various portals:

- ÖKOBAUDAT of the Bundesinstituts für Bau-, Stadt- und Raumforschung (BBSR), www.oekobaudat.de/datenbank
- > ECO Platform, www.eco-platform.org/
- Institut Bauen und Umwelt e.V., www.epd-online.com
- > Website Ejot, www.ejot.de

## **5 Evidence**

In the context of LEED projects, corresponding certificates, brochures and other relevant documents are made available.



Owner

### EJOT SE & Co. KG Market Unit Construction In der Stockwiese 35 57334 Bad Laasphe Germany T +49 2752 908-0 F +49 2752 908-731 bau@ejot.com

brands &values<sup>®</sup> sustainability consultants

www.ejot.de/bau

### **Creator & Publisher**

brands & values GmbH Altenwall 14 28195 Bremen Germany Tel.: +49 421 709084 - 33 Email: info@brandsandvalues.com Web: www.brandsandvalues.com