

Green Building with ceramic tiles

Product information for LEED APs

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Jasba 

Applicable for the current LEED rating systems (status July 2013)



Dear LEED AP,

This brochure provides all the information about Deutsche Steinzeug Cremer & Breuer AG's ceramic tiles that you need for LEED assessments. We hope to make your work easier and more effective by providing comprehensive information in a compact format.

At Deutsche Steinzeug Cremer & Breuer AG we take sustainability seriously – and not only at corporate level. We see transparent provision of environmental data as a way of supporting green building. We are also one of the first companies to have issued an Environmental Product Declaration (EPD) for ceramic tiles.

Deutsche Steinzeug Cremer & Breuer AG works to high social and environmental standards. We are committed to continuous improvement of our environmental footprint and have installed an energy management system in accordance with ISO 50001. All materials are responsibly sourced and nearly all raw materials are extracted close to our production sites in Germany.

To support sustainable architecture and design at the level of individual buildings, we have developed this brochure with experts in the various green building rating schemes.

We understand that collecting the documentation required for planning, construction and certification is time-consuming. Save time! On the following pages we have brought together all the sections in the LEED rating scheme that are relevant for Deutsche Steinzeug Cremer & Breuer AG's ceramic tiles.

Materials and resources

Recycled content **MR Credit 4**

Aim

To increase the demand for building products that incorporate materials with recycled content (RC), thereby reducing impacts resulting from extraction and processing of virgin materials.

Requirement

Declare the RC of all materials used, differentiated into post- and pre-consumer RC as defined in ISO 14021. Post-consumer RC refers to classical recycling – the material has been used before by end-users. Pre-consumer RC is defined as material diverted from the waste stream during a manufacturing process. Reutilization of materials within the process that generated them is excluded.

Product rating

Deutsche Steinzeug Cremer & Breuer AG uses 100% of internal regrind and scrap in the production process. However, these recycled materials are internal and cannot be considered as pre-consumer recycled content according to the LEED requirements. Thus, the recycled content of our ceramic tiles is 0%.

Note on sustainability

Recycled material is not used in the production of our ceramic tiles because the quality and durability of the products would be significantly reduced. We believe that reducing the durability of the tiles to achieve a higher recycled content would be far less sustainable than using virgin resources. This is especially the case as none of the raw materials used for our ceramic tiles are in short supply.

We are not aware of any tiles of similar quality and durability that incorporate pre-consumer recycled material from other industry sectors or post-consumer recycled content.

Certificates and documentation

Certification requires the identification of post-consumer and pre-consumer recycled content in accordance with DIN 14021 using the values declared by the manufacturer.

Regional materials

MR Credit 5

Aim

To increase the demand for building materials and products that are extracted and manufactured within the same region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

Requirement

To use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles/800km of the project site for at least 10%, or 20%, based on cost, of the materials. If only a fraction of a product or material is extracted, harvested, or recovered and manufactured locally, then only that percentage (by weight) must contribute to the regional value. The minimum percentages of regional materials for achieving the points are as follows:

- 10% regional materials -> 1 Point
- 20% regional materials -> 2 Points
- 30% regional materials -> 3 Points (Innovation Point)

Product rating

Deutsche Steinzeug Cremer & Breuer AG's ceramic tiles are produced in Germany at the following locations:

D-53347 Witterschlick D-53489 Sinzig
D-56244 Ötzingen D-92521 Schwarzenfeld

The raw materials are sourced at the following locations:

- Westerwald (Germany)
- Bavaria (Germany)
- Turkey
- Northern France
- Spain
- South Africa
- Australia

More than 80% of the raw materials (mass) come from Germany.

The products contribute to achieving LEED credits within MR Credit 5 regional materials, if the project lies within 800km of the location of raw material extraction and production.

Certificates and documentation

Attached map of locations.

Indoor environmental quality

Construction IAQ Management Plan — Before Occupancy IEQ Credit 3.2

Aim

To reduce indoor air quality (IAQ) problems resulting from construction or renovation in order to promote the comfort and well-being of construction workers and building occupants.

Requirement

Conduct baseline indoor air quality testing after construction ends and prior to occupancy. Demonstrate that the contaminant maximum concentrations of volatile organic compounds (VOCs) do not exceed $500\mu\text{g}/\text{m}^3$ and formaldehyde 27ppm.

The use of low-emitting materials is required.

Product rating

Deutsche Steinzeug Cremer & Breuer AG's ceramic tiles are certified A+, the highest quality, by the French VOC label „Émissions dans l'air intérieur“ and meet all requirements for low-emission flooring. The tiles have no negative impact on indoor air quality and therefore contribute to achieving points in this credit.

Certificates and documentation

The document for low-emitting products (French VOC label „Émissions dans l'air intérieur“) is attached.



Note on adhesives and other materials

LEED does not only set requirements for the tiles, but also for the VOC content of other materials used in conjunction with the tiles, such as adhesives and grout.

The VOC content must not exceed the values below:

- Tile adhesive: $<65\text{g}/\text{l}$ according to SCAQMD Rule 1168
- Grout: $<50\text{g}/\text{l}$ according to SCAQMD Rule 1168
- Silicone / Sealants: $<250\text{g}/\text{l}$ according to SCAQMD Rule 1168
- Primers, sealers and undercoats: $<100\text{g}/\text{l}$ according to SCAQMD Rule 1113

Please consider these requirements, when choosing the suitable materials.

HT: the effect

Specifying wall and floor tiles with the innovative HT coating determines three significant advantages: the tiles have an antibacterial effect, are easy to clean and capable of eliminating odours.

The antibacterial effect of HT is based on the principle of the photocatalysis. Light activates the oxygen molecules, which decompose bacteria and germs. The HT effect is reversible regenerating itself when exposed to light.

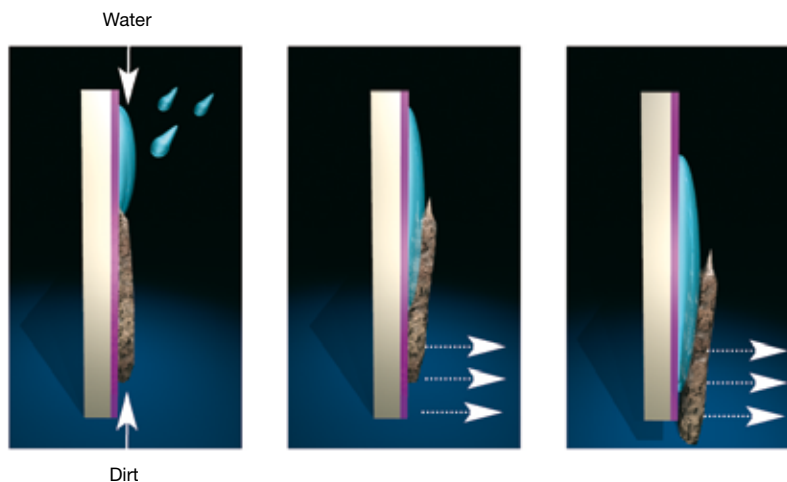
HT makes tile surfaces hydrophilic. Water is not repelled, but spreads to form a thin film on the tile surface. In this way, dirt is washed down and can be easily removed.

In contrast to conventional hydrophobic solutions (e.g. Lotus effect), coatings or impregnation, HT is so robust that both wall and floor tiles can be coated with it.

The third function is also based on the photocatalytic principle: disagreeable and harmful odours such as formaldehyde or ammonia are eliminated by the activated oxygen, and thus a lasting improvement of the air quality is achieved.

More information: www.clean-air-ceramics.de/en

No chance for dirt, oil and grease



With HT, dirt is washed down by the water and can then be easily wiped off.



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