Manufacturer: H-Bau Technik GmbH

Product Name: PENTAFLEX® Sealing technology

Product Rating:
- The product fulfills the requirements for paints and coatings and contribute to achieve one LEED credit within IEQ Credit 4.2.
- The product contains 22.5% recycled materials and contribute to achieve LEED credits within MR Credit 4.

Indoor Environmental Quality (IEQ) - LEED Category

IEQ Credit 4.1: Low Emitting Materials: Adhesives and Sealants 1 Point

IEQ Credit 4.2: Low Emitting Materials: Paints and Coatings 1 Point

IEQ Credit 4.3: Low Emitting Materials: Flooring Systems 1 Point

IEQ Credit 4.4: Low Emitting Materials: Composite Wood and Agrifiber Products 1 Point

Materials and Resources (MR) - LEED Category

MR Credit 4: Recycled Content 1-2 Points

MR Credit 5: Regional Materials 1-2 Points

MR Credit 6: Rapidly Renewable Materials 1 Point

MR Credit 7: Certified Wood 1 Point

Product Characteristics:

PENTAFLEX® is a joint sealing system for producing watertight concrete structures (white tank). The PENTAFLEX® elements are completely provided with a special coating and have been designed for structures with premium utilisation. They reliably seal joints in the wall/foot or wall/ceiling area, joints in the wall/wall or floor/floor area and joints in cast-in-situ concrete and component wall constructions reliably.

About LEED & Products - www.usgbc.org

This declaration helps to assess products easily according to the certification system LEED® 2009 New Construction and Major Renovations NC & CS (excluded SCHOOLS). Products are not reviewed or certified by LEED. LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information about LEED visit www.usgbc.org/leed. The project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve LEED points.

Below you find an explanation of the symbols. Detailed information are on the next pages.
**Manufacturer**  
H-Bau Technik GmbH

**Product Name**  
PENTAFLEX® Sealing technology

<table>
<thead>
<tr>
<th>Location</th>
<th>Manufacturing</th>
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<tbody>
<tr>
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<td>Klettgau (D)</td>
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<th>Regional Materials</th>
<th>Location</th>
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<tr>
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</table>

**Certified Wood**
- N/A

**Recycled Content**

- Post-Consumer:
  - Pre-Certified: Not specified
  - Consumer: 25%**

- Post-Consumer:
  - Pre-Certified: Not specified
  - Consumer: 22.5%

**VOC**

- VOC in System: 0
- VOC in Unit: 100 g/l

**Mass per Unit**

- 9%

**Detailed Rating**

- A1: Steel plate
- A2: Waterreactive coating
- A3: Steel plate
- A4: Steel plate

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Geschäftsführer: Dipl.-Ing. Thomas Höntke
Product Declaration - LEED® 2009 New Construction And Major Renovations NC & CS

Manufacturer: H-Bau Technik GmbH

Product Name: PENTAFLEX® Sealing technology

IEQ Credit 4.1: Low Emitting Materials: Adhesives and Sealants (1 Point)

**Intent**
Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants caused by adhesives and sealants applied on site.

**Requirement**
All adhesive, sealants and sealant primers used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) must comply with the VOC content limits of the following:
- SCAQMD Rule #1168 (effective date of July 1, 2005 and rule amendment date of January 7, 2005),

IEQ Credit 4.2: Low Emitting Materials: Paints and Coatings (1 Point)

**Intent**
Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants caused by paints and coatings applied on site.

**Requirement**
Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) must comply with the VOC content limits of the following:

### Detailed Rating

<table>
<thead>
<tr>
<th>No</th>
<th>Product Name</th>
<th>Manufacturer</th>
<th>Related Credit</th>
<th>Product Type</th>
<th>VOC-Content</th>
<th>Product</th>
<th>Contribution of Product</th>
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<tbody>
<tr>
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<td>N/A</td>
<td>The product is no adhesive, sealant, paint or coating.</td>
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<td>A2</td>
<td>Waterreactive coating</td>
<td>H-BAU Technik GmbH</td>
<td>IEQ Credit 4.2</td>
<td>Primers, Sealers and Undercoaters (SCAQMD Rule 1113)</td>
<td>100g/l 0g/l</td>
<td></td>
<td>The product fulfills the requirements for paints &amp; coatings.</td>
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</table>

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Manufacturer: H-Bau Technik GmbH

Product Name: PENTAFLEX® Sealing technology

MR Credit 4: Recycled Content (1-2 Points)

**Intent**

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

**Requirement**

Use materials with recycled content* such that the sum of post-consumer** recycled content plus one-half of the pre-consumer*** content constitutes at least 10%/20% (based on cost) of the total value of the materials in the project.

The minimum percentage materials recycled for each point threshold is as follows:

- 10% Recycled Content -> 1 Point
- 20% Recycled Content -> 2 Points.

* Recycled content is defined in accordance with the International Organization of Standards document, ISO 14021 — Environmental labels and declarations — Self-declared environmental claims (Type II environmental labeling).

** Postconsumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

*** Preconsumer material is defined as material diverted from the waste stream during the manufacturing process. Reutilization of materials (i.e., rework, reground or scrap generated in a process and capable of being reclaimed within the same process that generated it) is excluded.

**Detailed Rating**

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<th>No</th>
<th>Product Name</th>
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<td>Accountable recycled content according to LEED is 25% (1 x Post-Consumer + 0.5 x Pre-Consumer). **LEED default recycled content for steel</td>
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