Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER

H-Bau Technik GmbH

PRODUCT NAME

PENTAFLEX® Sealing technology

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.

Product Rating

• The product meets the requirements of quality level 1 to 4 and contributes to achieve 100 (of max. 100 achievable) checklist points according to criterion 'ENV1.2 Local Environmental Impact'.

• The product does not lead to toxic or corrosive fumes in case of fire. Hence this product contributes to achieve 20 (of max. 20 achievable) checklist points according to criterion 'SOC 1.7 Safety and Security'.

| The product contains the following components: | Mass pe unit [% |
|--|--------------------|
| <1 Steel plate | 90% |
| K2 Waterreactive coating | 10% |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| out DGNB Products - www.dgnb.de | |

About DGNB Products - www.dgnb.de

This declaration helps to assess products easily according the certification system DGNB. Products are not reviewed or certified by DGNB. DGNB credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. Therefore the project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve DGNB points. Detailed information are on the next pages.

Notice: This declaration is a product of HOINKA GmbH. This data sheet is published in the online database greenbuildingproducts.eu. The distribution by third parties is prohibited. This declaration is no official certificate in terms of DGNB. The contents are based on manufacturer specifications. In spite of a diligent treatment of all information HOINKA GmbH cannot guarantee the actuality or correctness of the published data. The Interpretation of the DGNB criteria requirements can differ and depend on the project and the scope of application. In spite of a diligent treatment of all information HOINKA GmbH cannot guarantee the correctness of the published data. The DGNB criteria requirements can differ and depend on the project and the scope of application. The spite of a diligent treatment of all information HOINKA GmbH cannot guarantee the correctness of evaluation in terms of the DGNB requirements can differ and depend on the project and the scope of application. The solution of a line of the project is a spite of a diligent treatment of all information HOINKA GmbH cannot guarantee the correctness of evaluation in terms of the DGNB requirements. The user of this declaration, the consumer of the product and the consultant/planner, who is advising this product in any construction projects, is responsible by himself to proof all data published in this document and to verify the permissibility for the designated application. The content of this data sheet does not manifest any legal relationship. With the publication of a new edition, this declaration can no longer be considered to be valid. The latest version is available in the intermet. HOINKA GmbH - greenbuildingproducts.eu + Lembergweg 7/1 + 71067 Sindelfinger + Tel. +49 7031 7659-441 + Fax +49 7031 7659-443 + www.greenbuildingproducts.eu + contact@greenbuildingproducts.eu + Geschäftsführer: Dipl.-Ing. Thomas Hoinka

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

MANUFACTURER

H-Bau Technik GmbH

PRODUCT NAME

PENTAFLEX® Sealing technology

Product assessment of complete system

| Торіс | Number | Criteria | Relevance | Evaluation |
|---|------------------|--|--------------|---|
| ENV1.1 | | Life cycle Assessment - Emissions | - | |
| | ENV1.2 | Local environmental impact | \checkmark | Quality Level 4 is fulfilled |
| | ENV1.3.1 | Responsible procurement (Wood) | | |
| | ENV1.3.2 | Responsible procurement (Formwork) | | |
| Environmental Quality (ENV) | ENV1.3.3 | Responsible procurement (Natural Stone) | | |
| | ENV2.1 | Life cycle Assessment - Primary Energy | | |
| | ENV2.2 | Potable water demand and wastewater volume | | |
| | ENV2.3 | Land Use | | |
| | ECO1.1 | Building-related life-cycle costs | | |
| Economic Quality (ECO) | ECO2.1 | Suitability for conversion | | |
| | ECO2.2 | Marketability | | |
| | SOC1.1 | Thermal Comfort | | |
| | SOC1.2 | Indoor Air Quality | | |
| | SOC1.3 | Acoustic Comfort | | |
| | SOC1.4 | Visual Comfort | | |
| | SOC1.5 | Occupant control | | |
| | SOC1.6 | Quality of outdoor spaces | | |
| Sociocultural and Functional Quality (SOC) | SOC1.7 | Safety and security | \checkmark | The product does not lead to toxic or corrosive fumes in case of fire |
| | SOC2.1 | Access for all | | |
| | SOC2.2 | Public access | | |
| | SOC2.3 | Cyclist facilities | | |
| | SOC3.1 | Design and urban quality | | |
| | SOC3.2 | Integration of public art | | |
| | SOC3.3 | Floor Plan Qualities | | |
| | TEC1.1 | Fire prevention | | |
| | TEC1.2 | Noise protection | | |
| | TEC1.3 | Building envelope quality | | |
| Technical Quality (TEC) | TEC1.4 | Adaptability of Technical Systems | | |
| - | TEC1.5 | Ease of cleaning and maintenance | | |
| - | TEC1.6 | Ease of dismantling and recycling | | |
| | TEC1.7 | Sound immission control | | |
| | PRO1.1 | Comprehensive project brief | | |
| | PRO1.2 PRO1.3 | Integral design Design concept | | |
| | PRO1.4 | Sustainability aspects in tender phase | | |
| Process Quality (PRO) | PRO1.5 | Documentation for Facility Management | | |
| | PRO2.1 | Environmental impact of construction | | |
| | PRO2.2 | Construction quality assurance | | |
| | PRO2.3 | Systematic commissioning | | |
| | SITE1.1 | Site location risks | | |
| Site Quality (SITE) | SITE1.2 | Public image and social conditions | | |
| | SITE1.3 | Access to transportation | | |
| | SITE1.4 | Access to specific-use facilities | | |

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

| MANUFACTURER | H-Bau Technik GmbH |
|--------------|-------------------------------|
| PRODUCT NAME | PENTAFLEX® Sealing technology |

Product assessment for criteria ENV1.2 - Local environmental impact

The product fulfills the requirements for Quality Level 1-4

Assessment: Quality Level 4

Goals and Relevance

Certain materials, construction products and preparations are a risk for soil, air, groundwater and surface water as well as for human's health, flora and fauna. In order to minimize risks for humans and the local environment, materials, (construction) products and preparations need to be reduced ,avoided or substituted, which due to their material properties or ingredients are a risk for surface and ground water, soil or air. Especially those materials, (construction) products and preparations must be reduced ,avoided or replaced, which affect human health, flora and fauna or harm within a short-, medium / or long-term period . This affects the entire life cycle - from production, processing at site, use of (building) inventory and disposal (dismantling, recycling, landfilling). These local risks are assessed material and product related. Hence eco-and human toxicological impact categories of LCA can not be applied due to lack of evaluation and measurement procedures.

Product Assessment

| Relevant Products | | Relevant Products Requirements of Quality Levels | | Assessement of Product | Evaluation |
|-------------------|--|--|--|------------------------|-----------------|
| 27 | Factory coated metal components: cladding, doors, radiators, heating and cooling ceilings. | Quality Level 1 | No use of lead, cadmium and chromium VI compounds | | |
| | Hot-dipped galvanizing are not considered as coatings for the purposes of this criterion. | Quality Level 2 | No use of lead, cadmium and chromium VI compounds | | Quality Level 4 |
| | Subject: Primer and finish coat (for example, paints, varnishes, | Quality Level 3 | No use of lead, cadmium and chromium VI compounds | | |
| | powder coatings) | Quality Level 4 | No use of lead, cadmium and chromium VI compounds | | |

Other remarks on classification

The VOC content in operation (without water) is 0g / I.

Product Declaration - DGNB New Construction Office and Administration Buildings (NBV12)

| PRODUCT NAME PENTAFLEX® Sealing technology Product assessment for criteria SOC1.7 - Safety and Security | The product fulfills the requ | irments for prevention of fumes. | Assessment: 20 of 20 Assessment: Checklist Points | | | | |
|---|--|----------------------------------|---|--|--|--|--|
| | Product assessment for criteria SOC1.7 - Safety and Security | | | | | | |
| | PRODUCT NAME | PENTAFLEX® Sealing technology | | | | | |
| | MANUFACTURER | H-Bau Technik GmbH | | | | | |

Goals and Relevance

A high sense of security contributes fundamentally to the comfort of human being. The goal is to avoid dangerous situations as much as possible and to reduce the impact of a non-preventable damage, as far as possible. The criterion safety and security assesses also the performance of products in case of fire.

Product Assessment

| Relevant Requirements | | Relevant Requirements | Requirements of Quality Levels | Assessement of Product | Evaluation |
|-----------------------|-----|--------------------------------|---|---|---------------------|
| 2 | 2.3 | Prevention from risks of fumes | 20 Checklist Points The product does not lead to toxic or corrosive fumes in case of fire | The product does not lead to toxic or corrosive fumes in case of fire. | 20 Checklist Points |

Other remarks on classification