

# Product Verification

## Sustainability

Self declared according to DGNB Gebäude Neubau 2018

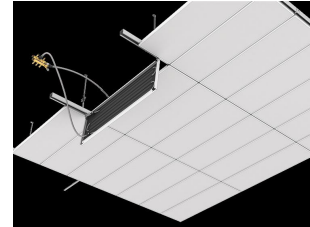
### ■ Product Systems

#### Plafotherm® Heated and Chilled Ceilings

##### Lindner Group

Our proven technologies create a healthy indoor climate in every room. Plafotherm® Heated and Chilled Ceilings offer impressively high capacities and good heat transfer. Our own accredited test laboratory guarantees further development of our Ceilings, which are tested as complete system, into the future. The sophisticated Ceiling Systems are low-maintenance, energy-efficient solutions that also contribute to sound protection. Our wide range of surfaces offers a unique choice of design options. Integrated Lindner Luminaires perfectly complete the ceiling construction.

- innovative Plafotherm® Heated and Chilled Ceilings offer impressively high capacities and good heat transfer
- proven technologies ensure comfort and a healthy, pleasant room climate
- all individual components are tested as a complete system in our own accredited test laboratory
- low-maintenance and energy-efficient solutions for many application areas
- acoustically effective Heated und Chilled Ceilings meet sound protection requirements
- various architecturally appealing design and layout possibilities
- one-stop service: easy integration of Lindner Luminaires possible



## Product Assessment

### Environmental Quality (ENV)

Criteria	Product Verification
ENV 1.1 Life Cycle Assessment of the Building (Updated on: 16.07.2018)	EPD available: Yes
ENV 1.2 Local environmental impact (Updated on: 16.07.2018)	Quality level 4 of 4
ENV 1.3 Sustainable resource extraction (Updated on: 16.07.2018)	N/A

Legend: yes = Product contributes toward satisfying the credit, N/A = Product not relevant in the credit, no = Credit requirements are not proven

## Summary

### The product contributes to the certification:

- The product has an Environmental Product Declaration (EPD), which can be used to calculate the building life cycle assessment (ENV1.1/2.1): EPD available: Yes
- Achieved quality level in DGNB 2018 Criteria ENV 1.2 Local environmental impact for the entire product: Quality level 4 of 4

## ■ Ecolabels & Product-Assessments

Cradle to Cradle Certified™ Silver



Cradle to Cradle Material Health  
Certificate Silver



## ■ Product Properties

**Ingredients:**

**Manufacturer:**

Environmental Management System according ISO 14001: Yes

## ■ Product Components

Name	Amount	Material type / Function	DfD	Total Weight	Specific Weight	Portion (%)
Subconstruction, zink coated steel sheet	0.160	Unterkonstruk	Yes	0.160	1 kg / kg	16.00 %
Aluminium Profile	0.220	Wärmeleitprof	No	0.220	1 kg / kg	22.00 %
CU-Pipes	0.160	Heiz- und Kühlregister	No	0.160	1 kg / kg	16.00 %
Powder Coating	0.003	Beschichtung	No	0.003	1 kg / kg	0.25 %
Hot melt adhesives	0.003	Verklebung Akustikvlies	No	0.003	1 kg / kg	0.25 %
Acoustical Fleece	0.003	Schallakustisc Absorption	No	0.003	1 kg / kg	0.25 %
Metal ceiling, zink coated steel sheet	0.450	Metaldeckenp	Yes	0.450	1 kg / kg	45.00 %
Sealing strip	0.003	Fugenabstand	No	0.003	1 kg / kg	0.25 %

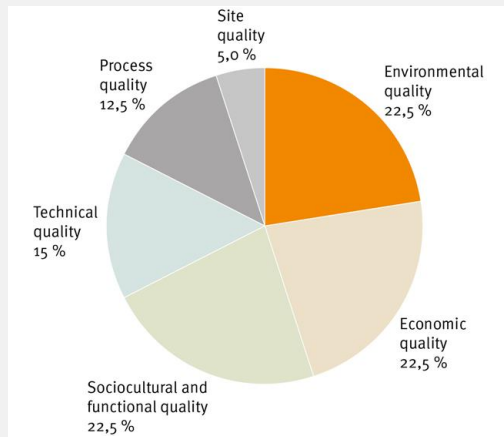
## System description

The DGNB certification system was founded by the "German Sustainable Building Council" and first appeared on the market in 2008. The DGNB system evaluates buildings holistically on the basis of individual criteria within the categories Ecological Quality, Economic Quality, Sociocultural and Functional Quality, Technical Quality, Process Quality and Location Quality. Different profiles allow the certification of new buildings and existing buildings, as well as of quarters in Germany and Internationally. Buildings can achieve a certification in Bronze, Silver, Gold and Platinum. Up to now, more than 3,500 projects have been awarded by the DGNB (as of June 2018).

Source: [www.dgnb.de](http://www.dgnb.de)

## System categories

### Category Weighting



Source: DGNB 2018

### Category

### Category considered in product verification

Environmental quality (ENV)	Yes
Economic quality (ECO)	No
Sociocultural and functional quality (SOC)	No
Technical quality (TEC)	No
Process quality (PRO)	Yes
Site quality (SITE)	No

# Detailed Verification

Self declared according to DGNB Gebäude Neubau 2018

## ■ Environmental Quality (ENV)

### ■ ENV 1.1 Life Cycle Assessment of the Building (Updated on: 16.07.2018)

The product has an Environmental Product Declaration (EPD), which can be used to calculate the building life cycle assessment (ENV1.1/2.1):

<b>Plafotherm® Heated and Chilled Ceilings</b>	<b>EPD available: Yes</b>
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An environmental product declaration exists for the product:

<b>Plafotherm® Heated and Chilled Ceilings</b>	Yes
Subconstruction, zink coated steel sheet	No
Aluminium Profile	No
CU-Pipes	No
Powder Coating	No
Hot melt adhesives	No
Acoustical Fleece	No
Metal ceiling, zink coated steel sheet	No
Sealing strip	No

EPD Owner of the Declaration:

<b>Plafotherm® Heated and Chilled Ceilings</b>	TAIM e.V. - Verband industrieller Metalldeckenhersteller
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

**EPD Publisher:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	Institut Bauen und Umwelt e.V. (IBU)
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

**EPD Programme holder:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	Institut Bauen und Umwelt e.V. (IBU)
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

**EPD Declaration number:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	EPD-TAI-20180163-IBG1-DE
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

**EPD Issue date:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	30.01.2019
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

**EPD valid to:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	29.01.2024
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

■ **ENV 1.2 Local environmental impact (Updated on: 16.07.2018)**

**Achieved quality level in DGNB 2018 Criteria ENV 1.2 Local environmental impact for the entire product:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	<b>Quality level 4 of 4</b>
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**Achieved quality level in DGNB 2018 Criterion ENV 1.2 Local environmental impact:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	Quality level 4
Subconstruction, zink coated steel sheet	Quality level 4
Aluminium Profile	Quality level 4
CU-Pipes	Quality level 4
Powder Coating	Quality level 4
Hot melt adhesives	Quality level 4
Acoustical Fleece	Quality level 4
Metal ceiling, zink coated steel sheet	Quality level 4
Sealing strip	No Information

**Row 33: Coated metal components: Façade elements, doors, radiators, heating/cooling ceilings. Hot dip galvanised materials are not regarded as coatings in the sense of this criterion. - Priming and final coating (e.g. paints, lacquers, powder coatings) are what is meant here.**

Achieved quality level in DGNB 2018 ENV 1.2 Row 33 for the entire product:

<b>Plafotherm® Heated and Chilled Ceilings</b>	<b>Quality level 4</b>
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Achieved quality level in DGNB 2018 ENV 1.2 Row 33:

<b>Plafotherm® Heated and Chilled Ceilings</b>	Quality level 4
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	No Information
Sealing strip	No Information

Factory coated metal components (DGNB ENV1.2 Row 33):

<b>Plafotherm® Heated and Chilled Ceilings</b>	Yes
Subconstruction, zink coated steel sheet	No
Aluminium Profile	No
CU-Pipes	No
Powder Coating	No
Hot melt adhesives	No
Acoustical Fleece	No
Metal ceiling, zink coated steel sheet	No
Sealing strip	No

Free of lead:

<b>Plafotherm® Heated and Chilled Ceilings</b>	Yes
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	Yes
Sealing strip	No Information



**Content of lead (optional):**

<b>Plafotherm® Heated and Chilled Ceilings</b>	No Information
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	0 %
Sealing strip	No Information

**Free of cadmium:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	Yes
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	Yes
Sealing strip	No Information

**Content of cadmium (optional):**

<b>Plafotherm® Heated and Chilled Ceilings</b>	No Information
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	0 %
Sealing strip	No Information

**Free of chromium-VI compounds:**

<b>Plafotherm® Heated and Chilled Ceilings</b>	Yes
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	Yes
Sealing strip	No Information

**Content of chrome-VI (optional):**

<b>Plafotherm® Heated and Chilled Ceilings</b>	No Information
Subconstruction, zink coated steel sheet	No Information
Aluminium Profile	No Information
CU-Pipes	No Information
Powder Coating	No Information
Hot melt adhesives	No Information
Acoustical Fleece	No Information
Metal ceiling, zink coated steel sheet	0 %
Sealing strip	No Information

The product does not fall under any of the above listed product groups according to DGNB 2018 ENV 1.2

The entire product does not fall under a DGNB 2018 requirement in ENV 1.2 Local environmental impact. The product helps to achieve the following quality level:

<b>Plafotherm® Heated and Chilled Ceilings</b>	<b>4</b>
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The product does not fall under a DGNB 2018 requirement in ENV 1.2 Local environmental impact. The product helps to achieve the following quality level:

<b>Plafotherm® Heated and Chilled Ceilings</b>	No Information
Subconstruction, zink coated steel sheet	Quality level 4
Aluminium Profile	Quality level 4
CU-Pipes	Quality level 4
Powder Coating	Quality level 4
Hot melt adhesives	Quality level 4
Acoustical Fleece	Quality level 4
Metal ceiling, zink coated steel sheet	Quality level 4
Sealing strip	No Information

The product does not fall under any of the above listed product groups according to DGNB 2018 ENV 1.2 or the relevant product group is evaluated on the components:

<b>Plafotherm® Heated and Chilled Ceilings</b>	No
Subconstruction, zink coated steel sheet	Yes
Aluminium Profile	Yes
CU-Pipes	Yes
Powder Coating	Yes
Hot melt adhesives	Yes
Acoustical Fleece	Yes
Metal ceiling, zink coated steel sheet	Yes
Sealing strip	Yes

#### ■ ENV 1.3 Sustainable resource extraction (Updated on: 16.07.2018)

The entire product contributes to achieve points in the criterion ENV 1.3 Sustainable resource extraction:

<b>Plafotherm® Heated and Chilled Ceilings</b>	N/A
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## ■ Contact Details Manufacturer

### Lindner Group

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94424 Arnstorf  
DE  
<https://www.Lindner-Group.com/>

Contact Person: Herr Marcel Gröpler



## ■ Disclaimer

This verification is the evaluation and ranking of products in terms of the certification system DGNB 2018 (New construction building). The DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen) generally does not certify products. Therefore the project team or the manufacturer is responsible to declare compliance with respect to the DGNB criteria. Notice: This verification is generated by the Assessment Service of BMS. The distribution or publication by third parties is not permitted. The data sheet is not a DGNB certification document. The information is based on the manufacturer's specifications. Despite a diligent treatment of all information BMS can not make any warranties about the completeness, reliability and accuracy of this information. The requirements of DGNB can be interpreted differently and depend on the project and scope of application. Therefore, BMS cannot accept any liability for the evaluation in terms of the DGNB criteria. The user of the data sheet, the user / purchaser of the product and the consultant / planner, who is advising on this product has the duty to check the product for the intended application at their own responsibility. When a new version of this product verification is produced, the previous version loses its validity.