

Concepts

Products

Service



**Their openness is remarkable.**

Lindner Baffle Ceilings and Plafotherm® Baffle Heated/Chilled Ceilings



**Lindner**

Building New Solutions

# Building new solutions.

Lindner undertakes major worldwide projects in all areas of interior finishes, insulation technology, industrial services and building facades. From pre-planning through to project completion Lindner is your partner of choice.

The Company's extensive manufacturing capability enables quality to be strictly maintained whilst allowing maximum flexibility to meet individual project requirements.

Environmental considerations are fundamental to all Lindner's business principles.

Through partnerships with clients Lindner turns concepts into reality.

## Choosing Lindner you have:

Lindner Concepts:  
Tailored solutions specifically geared to satisfy individual project requirements

Lindner Products:  
Quality materials and systems to the very highest industry standards

Lindner Service:  
Comprehensive project management services



# Lindner Metal Baffle Ceilings

The sky is the limit. For your ideas.

The hard-walled surfaces of concrete ceilings can lead to bad room acoustical working conditions. Here, corrections are needed and required. Thus, use the exceptional area distribution of a Lindner Baffle ceiling to create a unique room atmosphere.

The baffle system of Lindner is optimally suitable for belated installation, in particular, where acoustical problems with concrete ceilings are noticed after completion. Profit of the amazing possibilities of room layout. Whether in a simple shape as linear grid, with waved baffles or as a free canopy ceiling construction – the ceiling itself makes an effective contribution due to its acoustical performance.

Baffle ceilings can additionally be equipped with our efficient integrated heating and cooling technology to create a pleasant air condition.



Canberra International Airport, Canberra, Australia  
© Rodrigo Vargas Photography

## Customer benefits at a glance

- Considerable possibilities in execution and design
- High sound absorption
- Ceiling void is optimally suitable for the integration of luminaires, sprinklers or ventilation systems
- Design variety due to wide range of perforations and surfaces
- Our efficient Plafotherm® heating and cooling technology creates a pleasant temperature

# Content

## **LMD Metal Baffle Ceilings**

LMD-L LAOLA	7
LMD-L 601	8-9
LMD-L 607	10
LMD-L 608	11
Sound absorption	13

<b>Plafotherm® Heated/Chilled Metal Baffle Ceilings</b>	<b>14-16</b>
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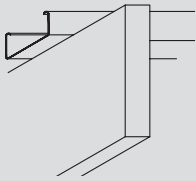
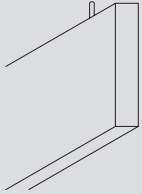
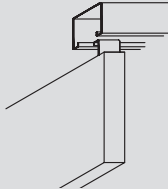
<b>Lindner Lighting systems</b>	<b>17</b>
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<b>Specialties</b>	<b>18</b>
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<b>Green Building</b>	<b>19</b>
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# LMD Metal Baffle Ceilings

Maintain silence.

System			Page
LMD-L 601		<p><b>Metal Baffle Ceiling, suspended</b> With substructure, screwed baffle</p>	8-9
LMD-L 607		<p><b>Metal Baffle Ceiling, directly fastened</b> Without substructure, baffle directly suspended</p>	10
LMD-L 608		<p><b>Metal Baffle Ceiling, Hook-On/Slide baffle</b> With substructure made of double Hook-On profile, Hook-On/Slide baffle</p>	11

## Tested quality



Building material class A2-s1, d0  
tested to EN 13501-1  
Class A (IBC) tested to ASTM E 84



Light reflectance approx. 82 %  
9010 acc. to Lindner,  
unperforated tested to DIN 5033



Sound absorption  
up to sound absorption class C  
tested to ISO 11654



Durability  
exposure class A  
tested to EN 13964, table 8 and 9



Environmental product declarations  
validated to ISO 14025

## Certification / Regulations



Execution of the system ceilings  
tested to EN 13964



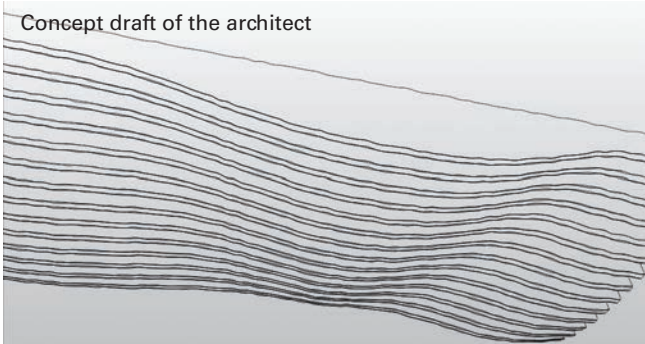
Quality standard according to the technical  
regulations of TAIM (Association of Industrial  
Metal Ceiling Manufacturers TAIM e.V.)

## Technical data

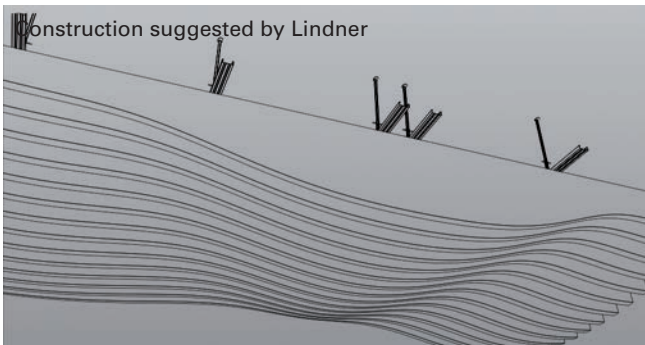
<b>Dimensions</b>	Baffles, length up to 3,000 mm, one-piece baffle height 80 to 260 mm, two-piece baffle heights > 260 mm also possible, made of zinc-galvanised steel
<b>Edges</b>	Square or wavelike
<b>Perforation</b>	See Surface Brochure
<b>Surface</b>	Electrostatically applied powder-coating further surfaces see Surface Brochure
<b>Colour</b>	9010 acc. to Lindner, other colors in RAL and NCS available
<b>Substructure</b>	Profile manufactured from galvanised sheet steel, roll-formed or bent steel profile including suspension
<b>Relevant norms</b>	DIN EN 10152/10327/13964, DIN EN ISO 12944, BS 2989, ASTM A 653

# Package solutions from one source – example LMD-L LAOLA

Concept draft of the architect



Construction suggested by Lindner



## Concept

Lindner offers not only suitable products but also the services you need to complete your project. Your visions become our goals which our highly skilled drafters implement by using state-of-the-art 3D visualizations.

## Design and Development

It goes without saying that we have the necessary equipment to test the design and functions of all our products in our own research and development facilities, thus preventing disturbances during the course of your project.

## Production

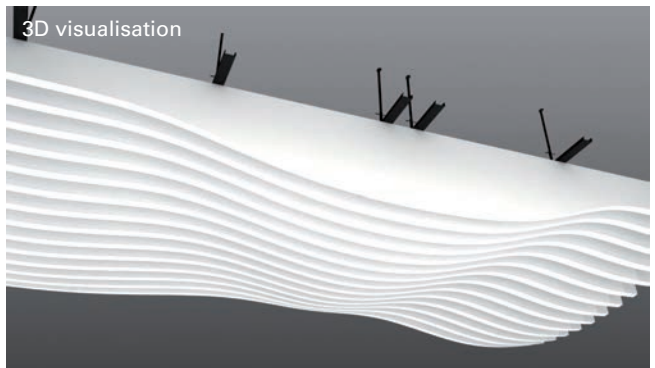
Specialists in every department and ultramodern production lines enable us to manufacture large quantities. As a result, Lindner has constantly set new milestones in combining design, functionality and flexibility.

## Delivery and assembly

You need customised products and also someone who efficiently assembles them? Then let us be your competent partner who is always close at hand and put your trust in Lindner's reliable assembly service.

Experience the utmost flexibility that only Lindner offers. We look forward to realising your extraordinary building.

3D visualisation

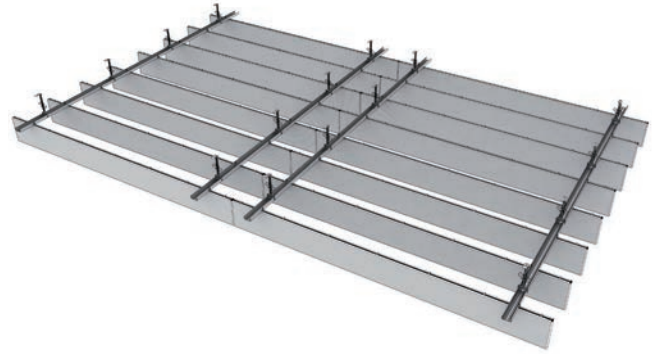
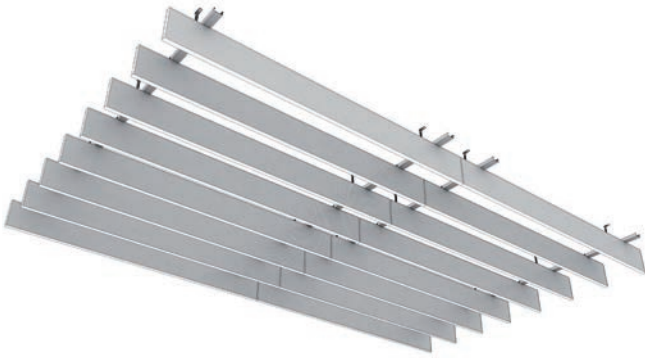


Finished product



# LMD-L 601

Metal Baffle Ceiling suspended – With substructure, screwed baffle




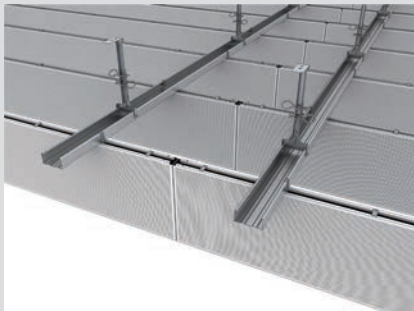

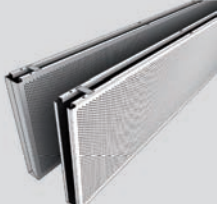

The linear design of metal baffles offers sufficient scope for creative customised solutions due to their multifunctional possibilities of installation. Thanks to the substructure by means of CD profile grid and individual baffle distances, the integration of necessary installations is possible without any problems. Due to the variation of the centre distance, both the sound absorption and the visual appearance can be changed.

**Advantages:**

- Different centre distances possible
- Ceiling void can be used for ventilation systems
- Free spaces can be used for different installations, e.g. luminaires, sprinklers or for the suspension of signs
- Perforated baffles with inlays suitable for sound absorption

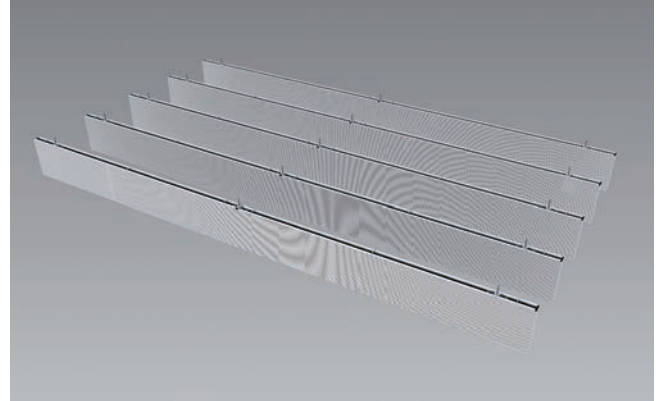


## Standard requirements

System	Detail	Installation situation
<p>LMD-L 601 Type 1                      one-piece, closed/closed                      Baffle length: max. 3,000 mm,                      Baffle width: 30 or 55 mm,                      Baffle height: 80 - 260 mm</p>		
<p>LMD-L 601 Type 2                      one-piece, open/open                      Baffle length: max. 3,000 mm,                      Baffle width: 30 or 55 mm,                      Baffle height: 80 - 260 mm</p>		
<p>LMD-L 601 Type 3                      one-piece, closed/open                      Baffle length: max. 3,000 mm,                      Baffle width: 30 or 55 mm,                      Baffle height: 80 - 260 mm</p>		
<p>LMD-L 601 Type 4                      two-piece                      Baffle length: max. 3,000 mm,                      Baffle width: 35 mm,                      Baffle height: 120 - 400 mm</p>		

# LMD-L 607

Metal Baffle Ceiling, directly fastened – Without substructure, baffle directly suspended



The extraordinarily elegant metal baffle LMD-L 607 is characterised by the direct fixation without visible substructure.

The special suspension by means of threaded rod can be fastened directly on the concrete slab. Here, attractive design and excellent acoustical characteristics melt together.

#### Advantages:

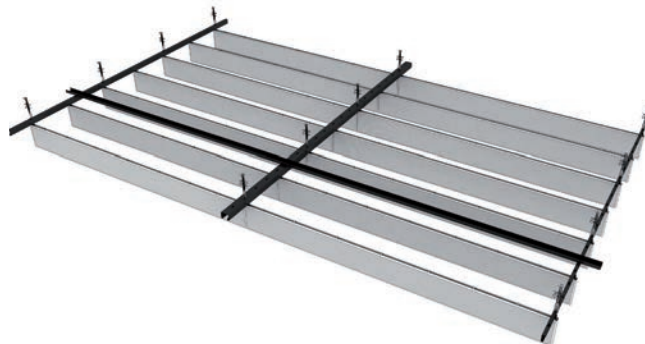
- No substructure profiles necessary resp. visible
- Different centre distances possible
- Free spaces can be used for different installations, e.g. luminaires, sprinklers or for the suspension of signs
- Perforated baffles with inlays suitable for sound absorption

## Standard requirements

System	Detail	Installation situation
<p>LMD-L 607 Type 1 one-piece, closed/closed Baffle length: max. 3,000 mm, Baffle width: 30 or 55 mm, Baffle height: 80 - 260 mm</p>		
<p>LMD-L 607 Type 2 one-piece, open/open Baffle length: max. 3,000 mm, Baffle width: 30 or 55 mm, Baffle height: 80 - 260 mm</p>		
<p>LMD-L 607 Type 3 one-piece, closed/open Baffle length: max. 3,000 mm, Baffle width: 30 or 55 mm, Baffle height: 80 - 260 mm</p>		

# LMD-L 608

Metal Baffle Ceiling, Hook-On/Slide baffle – With substructure made of double Hook-On profile, Hook-On/Slide baffle



This high-grade baffle ceiling is especially suitable for areas with increased maintenance demands. Due to movable baffles, you can comfortably reach the ceiling void. The ceiling itself makes a contribution due to its acoustical performance. The waved metal baffle ceiling LMD-L LAOLA creates an especially vivid atmosphere.

### Advantages:

- Especially maintenance-friendly
- Different centre distances possible
- Ceiling void can be used for ventilation systems
- Free spaces can be used for different installations, e.g. luminaires, sprinklers or for the suspension of signs
- Perforated baffles with inlays suitable for sound absorption
- Baffles with customised shapes possible, e.g. LMD-L LAOLA (waved)

## Standard requirements

System	Detail	Installation situation
LMD-L 608 Type 1 one-piece Baffle length: max. 3,000 mm, Baffle width: 30 or 55 mm, Baffle height: 80 - 260 mm		
LMD-L 608 Type 2 two-piece Baffle length: max. 3,000 mm, Baffle width: 35 mm, Baffle height: 120 - 400 mm		





VIP Lounge, Munich, Germany  
© Florian Holzherr



LMD-L LAOLA Shine with LED illumination



# Sound absorption

There are high demands on modern buildings. Besides design, safety, flexibility and function, a long-term economic efficiency has to be embedded. Moreover, the people inside the building should feel comfortable. Our large range of perforations improves both the acoustic and the visual appearance according to your demands. The use of ceilings from our range of products with different inlays provides you the required efficiency.

<p><b>Rv 2,0-20</b> Acoustic tissue Sound absorption inlay Width: 55 mm Height: 245 mm Centre distance: 300 mm</p>	<p><math>\alpha_w = 0.60</math> <math>\alpha_{s,m} / SAA = 0.64</math> NRC = 0.65</p>	
<p><b>Rv 2,0-20</b> Acoustic tissue Sound absorption inlay Width: 30 mm Height: 245 mm Centre distance: 300 mm</p>	<p><math>\alpha_w = 0.50</math> (H) <math>\alpha_{s,m} / SAA = 0.52</math> NRC = 0.55</p>	



# Building material class

Product	Building material class	
<p><b>Metal baffle</b> Metal baffle manufactured from galvanized sheet steel, including powder-coated surface in colour 9010 acc. to Lindner and bonded acoustic tissue on the reverse side</p>	<p>A2-s1, d0 tested to EN 13501-1</p>	
<p><b>Mineral wool inlay</b> Mineral wool shrink-wrapped in acoustic transparent foil Insula A2 Insula I Insula Basic</p>	<p>A2-s1, d0 tested to EN 13501-1 B1 tested to DIN 4102-1 B2 tested to DIN 4102-1</p>	



# Plafotherm®

## Heated/Chilled Metal Baffle Ceilings



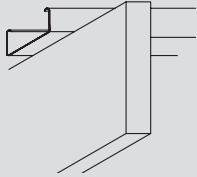
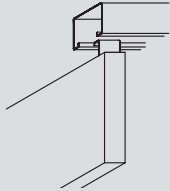
Ceiling systems of the range Plafotherm® L are open heated/chilled ceilings in grid construction. Due to the open construction, maintenance works are possible at any time.

Different systems of the Heated/Chilled Baffle Ceilings are available.

Due to variations of the centre distance, both the specific heating and cooling performance and the sound absorption as well as the visual appearance can be changed.



## Programme

System	Detail	Description
Plafotherm® L 601		<b>Heated and Chilled Metal Baffle Ceiling, suspended</b> With substructure, screwed baffle
Plafotherm® L 608		<b>Heated and Chilled Metal Baffle Ceiling, Hook-On/Slide baffle</b> With substructure made of couple Hook-On profile, Hook-On/Slide baffle

## Tested quality



Building material class A2-s2, d0  
tested to EN 13501-1



Light reflectance approx. 82 %  
9010 acc. to Lindner,  
unperforated tested to DIN 5033



Sound absorption  
up to sound absorption class C  
tested to ISO 11654



Durability  
exposure class A  
tested to EN 13964, table 8 and 9



Environmental product declarations  
validated to ISO 14025



Nominal cooling capacity up to 21.1 W/lfm  
tested to DIN EN 14240 (10 K)  
Nominal heating capacity up to 21.7 W/lfm  
tested to DIN EN 14037 (15 K)

## Certification / Regulations



Execution of the system ceilings  
tested to EN 13964



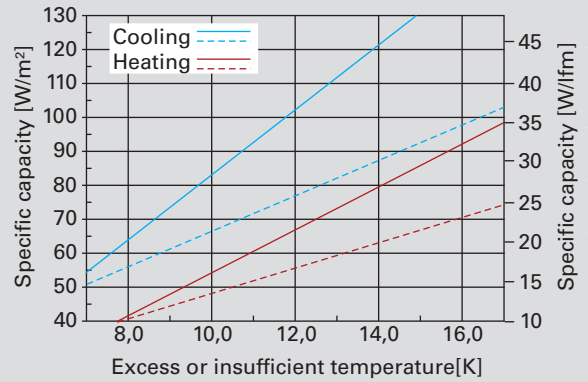
Quality standard according to the technical  
regulations of TAIM (Association of Industrial  
Metal Ceiling Manufacturers TAIM e.V.)



# Heating and Cooling

## Heat conducting profile with Cu-pipe fret

<b>Heating/Cooling technology</b>	consisting of aluminium heat conducting profile with copper pipe fret, integrated into baffle for thermal conductivity
<b>Heat conducting profile</b>	aluminium profile in standard widths of 80 and 120 mm
<b>Pipe fret</b>	copper coil, 12 x 0.5 mm
<b>Water volume</b>	approx. 1 l/fm
<b>Nominal cooling capacity acc. to DIN EN 14240 (10K)</b>	21.1 W/lfm 84.3 W/m <sup>2</sup> (baffle distance 250 mm)
<b>Nominal heating capacity acc. to DIN EN 14037 (15K)</b>	21.7 W/lfm 86.7 W/m <sup>2</sup> (baffle distance 250 mm)



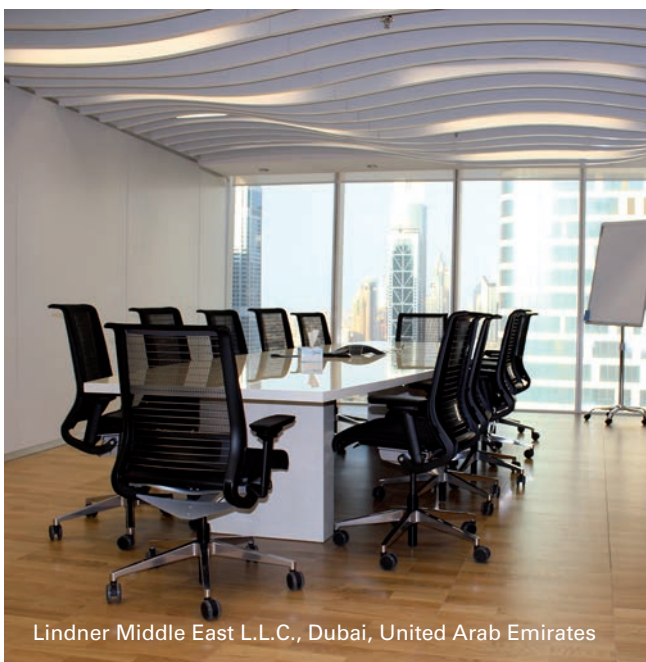
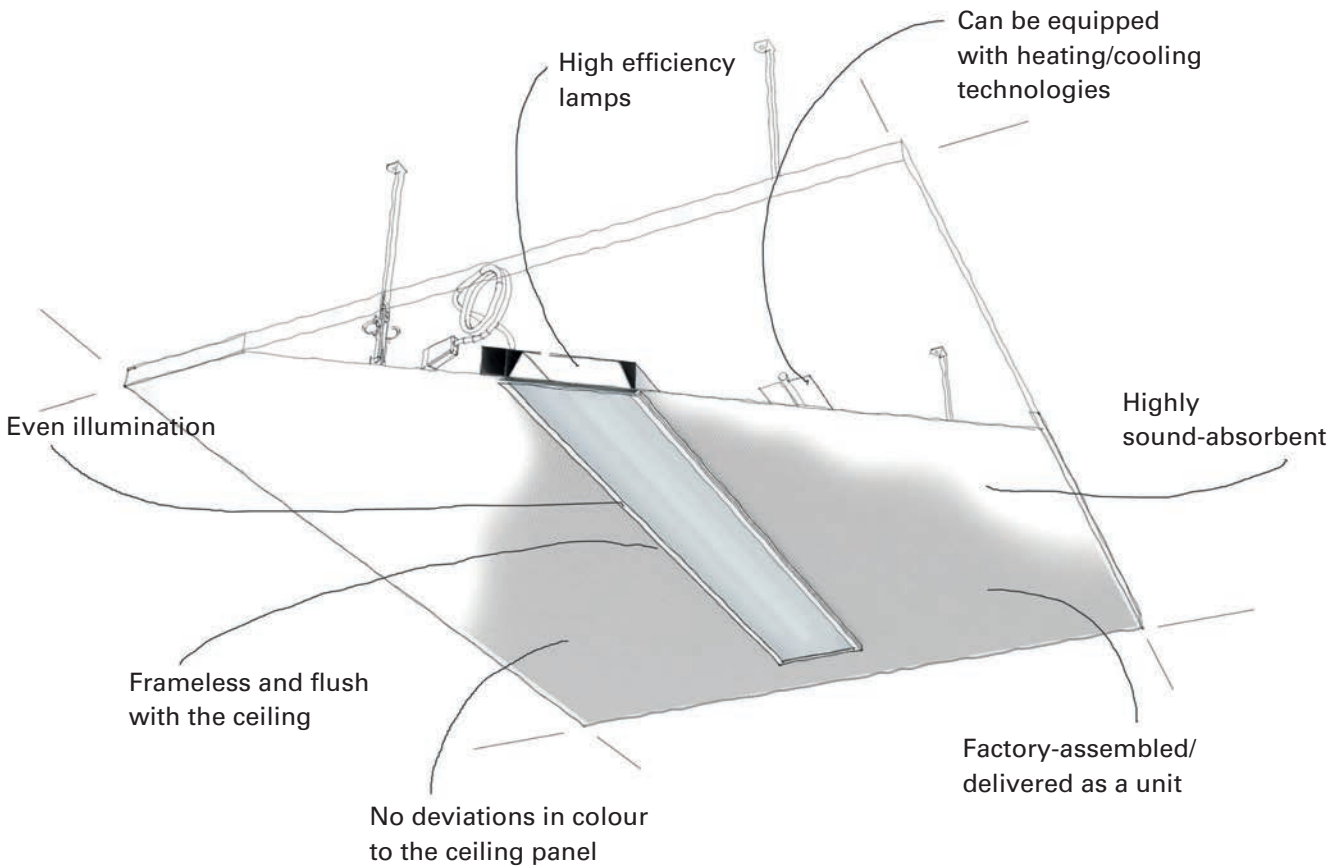
# Sound absorption

<b>Rv 1,8-20</b> Centre distance: 100 mm Baffle height: 200 mm Acoustic tissue Mineral wool	$\alpha_w = 0.60$ (MH) $\alpha_{s,m} / \text{SAA} = 0.66$ NRC = 0.65	
<b>Rv 1,8-20</b> Centre distance: 150 mm Baffle height: 200 mm Acoustic tissue Mineral wool	$\alpha_w = 0.50$ (MH) $\alpha_{s,m} / \text{SAA} = 0.59$ NRC = 0.60	
<b>Rv 1,8-20</b> Centre distance: 200 mm Baffle height: 200 mm Acoustic tissue Mineral wool	$\alpha_w = 0.45$ (MH) $\alpha_{s,m} / \text{SAA} = 0.55$ NRC = 0.55	
<b>Rv 1,8-20</b> Centre distance: 250 mm Baffle height: 200 mm Acoustic tissue Mineral wool	$\alpha_w = 0.40$ (MH) $\alpha_{s,m} / \text{SAA} = 0.46$ NRC = 0.45	

# Lindner Lighting systems

Integration is our passion.

Lindner has a wide range of lighting fixtures that fulfill even the most demanding requirements.



Lindner Middle East L.L.C., Dubai, United Arab Emirates

## Light Channels

The length and the execution of the light channels can flexibly be adapted to the room geometry. Moreover, they impress from the technology to the easy installation.

## Pendant Luminaires

The light source can individually be positioned where you need the room to be illuminated. All pendant luminaires are adapted to the geometry of your room.



# Specialties

Our surfaces and designs – unrivalled choice.

## ARTline

To create a top of the range visual effect your metal baffle ceiling is available with a choice of ARTline wood surfaces. The wood surfaces are also available tested to ASTM E 84 class A, regarding fire behaviour of surfaces.



## Meteo

We protect the substructure and surface of our systems against corrosion to allow them to be installed in external areas, swimming pools and underground car parks. The anti-corrosion coating Meteo is tested to EN 13964 table 8 / DIN 55928 part 8 / DIN EN ISO 12944.



VU University Medical Center, Amsterdam, Netherlands  
© www.justdirk.net





# Green Building

A responsible approach to humans and nature is a matter of course for us as a manufacturer of long lasting ceiling systems in premium quality. We are continuously optimizing our wide range with the objective to further reduce their impact on the environment. Every production step is subject to a thorough control of the ambitious energy, material and quality requirements. This ensures that our clients do not only get a sophisticated product but that they can also rely on the ecological suitability.

Validated environmental product declarations according to ISO 14025 are available for the procedure of proof of the environmental performance of Lindner ceiling systems.



Unilever, Hamburg, Germany



Lindner is a founding member of the German Sustainable Building Council (DGNB) and member of the US Green Building Council. We are actively involved in building up awareness for the principles of sustainable construction and the development of relevant standards.

## Sustainable construction with Lindner ceiling systems:

- Extremely durable products with best functional characteristics and high economic efficiency
- End-to-end procedure of proof of the ecological material characteristics by environmental product declarations
- Consultancy service with all current building certifications, as for example according to DGNB, LEED, BREEAM

## Simply healthier: Lindner ceiling systems.

- High recycling percentage up to 45 %
- VOC values are considerably below the limit according to AgBB / DIBt
- Free from toxicological gases, thus it is toxicologically inoffensive in case of fire according to DIN 53436
- The substances used for pre-cleaning of powder coating are no hazardous substances according to the Ordinance on Hazardous Substances.
- Powder recovery of surface coating of approx. 25 %
- Reference useful life is 70 years according verified EPD
- Up to 30 % of the primary energy demand can be saved with Plafotherm® heated and chilled ceiling systems

## We can do it all for you.

### Lindner Concepts:

- Insulation Engineering
- Clean Rooms and Laboratories
- Airports and Airlines
- Railways and Tunnels
- Studios and Concert Halls
- Interior Fit-out and Furnishings
- Cruise Liner and Ship Fit-out
- Hotels and Resorts
- General Contracting

### Lindner Products:

- Facades
- Steel & Glass
- Roofing Systems
- Ceiling Systems
- Lights and Lighting Systems
- Partition Systems
- Doors
- Floor Systems
- Heating and Cooling Technologies
- Dry Lining Systems

### Lindner Service:

- Green Building
- Deconstruction and Gutting
- Clearance of Harmful Substances
- Industrial Scaffolding
- Research and Development
- Delivery
- General Planning
- Installation
- Maintenance and Industrial Service
- Public-Private Partnership (PPP)

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