



Product information

Product description

Lindner Life Stereo 125

The glass partition wall - Lindner Life Stereo 125 is a non-load-bearing assembly partition wall in shell construction, which is manufactured to suit the project. It is delivered in individual or component parts and assembled on site using simple assembly processes.

The frame face width of the aluminium frame is 35 mm all round.

Scope of application

Project construction, e.g. office and conference rooms, industrial and work rooms as well as training and research rooms.

Base materials

Basic materials per 3.75 m ^{2*}				
System components	Material	Percentage by weight [%]		
ESG/VSG pane	Glass	~ 75.0		
Glazing frame	Aluminium	~ 10.0		
System stand	Steel, galvanised	~ 10.0		
Floor and ceiling profile	Steel, powder-coated	~ 5.0		
Height adjustment shoe	Steel, galvanised	< 0.5		
Hanging claw	Steel, galvanised	< 0.5		
Rivets	Steel, galvanised	< 0.5		
Joint backing	EPDM	< 0.5		
Sealing tape	PE foam adhesive tape	< 0.5		
Plug-in seal	TPE	< 0.5		
Sound insulation insert	Plastic foam	< 0.5		

^{*)} Calculation basis: 3.75 m² corresponds to the standard dimensions of height x width of an element: 3,000 mm x 1,250 mm

Material explanation

Glass

ESG: Toughened safety glass VSG: Laminated safety glass

Aluminium

Extruded aluminium profiles are coated (powder-coated or anodised), cut to size and assembled into a frame using screws and corner connectors.

Steel

Steel refers to metallic alloys whose main component is iron and whose carbon content is between $0.02\,\%$ and $2.06\,\%$.

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Green Building Information



Green Building Statement

Even when developing our products, we think in terms of closed cycles. We have been one of the specialists in the field of sustainable construction for years. Supported by our internal "Green Building" department, we ensure the sustainability goals of your construction project. The consideration of the sustainability of the product focusses on the ecological footprint, as well as circular and healthy building.

LinLoop: Circular business models

With our sustainable business models, we bring the circular economy into practice! Adapted to the German, Austrian and Swiss markets, LinLoop offers flexible rental and return options that combine economic, ecological and social factors. In doing so, we ensure the careful use of our resources and at the same time enable the customised design of sustainable working environments.



Carbon footprint

This section shows the amount of carbon dioxide emissions generated during the individual stages of the product's life cycle. The global warming potential (GWP) is expressed as a CO_2 equivalent and describes the contribution of a substance to the warming of the air layers near the ground (greenhouse effect). This is considered in relation to the global warming potential of CO_2 . The lower this value is, the lower the associated environmental impact.

A carbon footprint in accordance with DIN EN ISO 14067 can be created for the Life Stereo 125 system partition wall on request.



Circular construction

By implementing the circular concept, we avoid waste, toxic substances and environmental pollution. The section presents the following topics: recyclable materials, the use of renewable forms of energy, the responsible use of water, the adaptability of the product during use and also the recyclability after dismantling.



Healthy construction

The chapter presents the aspects of healthy building, from the choice of pollutant- and emission-free materials in the product to the well-being of the user.

Certification systems and evidence

The Life Stereo 125 system partition wall is Cradle to Cradle Certified[®] Silver and is suitable to contribute to the requirements of the building certifications DGNB, LEED etc.. In the listed credits, the wall contributes to achieving the points or required quality levels.

Information on circularity can be found in the "Product Circularity Data Sheet".



PRODUCTION AND ASSEMBLY



Carbon Footprint

The following table shows the Global Warming Potential for the production stage, which includes modules A1 (provision of raw materials), A2 (transport) and A3 (manufacturing). The construction stage includes transport from the manufacturer to the place of use (A4) and assembly (A5).

A version with Hydro Low Carbon Aluminium significantly reduces the CO2 emissions of the glass partition wall.

Parameters	Unit	A1-A3 Product stage	A4 Transport from the gate to the site*	A5 Assembly
GWP	[kg CO ₂ -eq./m²]	N/A	N/A	N/A

^{* 500} km



Circular construction

A water circulation concept systematically reduces water consumption. The necessary process water can circulate due to sedimentation and cleaning of the solids.

Waste that cannot be avoided during production is channelled into recycling processes via specialist disposal companies.

The system partition wall has a verified material reuse value of 62.60. This is calculated from the proportion of recycled materials and the proportion of materials that can be recycled.

The pre- and post-consumer recycling shares of the components can be seen in the following table.

0	Weight percentage	Recycling p	D d	
Components	[%]	Pre-consumer	Post-consumer	Production site
ESG/VSG pane	~ 75.0	20	5	Ostrov
Glazing frame	~ 10.0	0	30	Ostrov
System stand	~ 10.0	0	25	Ostrov
Floor and ceiling profile	~ 5.0	0	25	Arnstorf
Other	< 0.5	0	0	Arnstorf

Pre-consumer: waste from industrial processing; post-consumer: waste after use by end consumers



Healthy construction

By delivering finished wall elements that no longer need to be processed on the construction site, the product contributes to a noise- and dust-free construction site.

As a manufacturer of products, Lindner fulfils its obligations under the EU chemicals directive "REACH" and has drawn up its own REACH declaration.

The aim of the **REACH Regulation** (Registration, Evaluation and Authorisation of **CHemicals**) is to record substances produced and used in the EU and to determine and record their effects on health and the environment.

C2C Certified Material Health Certificate™ in "Silver". 97.66% of the materials were assessed using the ABC-X scheme.

Components	Weight percentage [%]	voc	GISCODE/ EMICODE	Other
Glazing frame, system upright, floor and ceiling profile, height adjustment shoe, suspension claw	~ 25.0	-	-	Without lead, mercury, cadmium and chromium (VI) compounds
Sealing tape	< 0.5	-	-	Without lead, mercury, cadmium and chromium (VI) compounds



USE



Carbon Footprint

The partition system does **not** cause any environmental impact during use. The door does not need to be maintained and no repairs or replacements are to be expected if it is used correctly. To ensure correct use, instructions for use, maintenance and care are provided to the service providers carrying out the work.

Parameter s	Unit	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use
GWP	[kg CO ₂ - ea./m ²]	N/A	N/A	N/A	N/A	N/A	N/A	N/A

MND = Module not declared; MNR = Module not relevant



Circular construction

The useful life of non-load-bearing interior walls is ≥ 50 years (according to <u>BBSR table</u>, code no. 342.411, as of 02/2017, published by the Bauinstitut für Bau-, Stadt- und Raumforschung).

If used correctly, there are no costs for maintenance, repair or replacement during this time. The partition wall element is easy to move. Each glazing element can be removed, moved and replaced individually. The product can be maintained and repaired by trained personnel at the product's place of use. Spare parts are provided by the manufacturer during the service life of the product. The non-load-bearing interior wall is also offered as a "product as a service".



Healthy construction

Test chamber measurements in accordance with the requirements of the Eurofins Indoor Comfort quality mark[®] GOLD (e.g. AgBB measurement scheme):

TVOC (AgBB/DIBT) C₆ - C₁₆: after 28 days < 5 µg/m³

Formaldehyde value: after 28 days < 3 µg/m³

Report number: 392-2018-00188002

The Lindner Life Stereo 125 can be designed with a sound reduction index in accordance with ISO 717-1 of up to $R_w = 53 \text{ dB}^*$. Longitudinal sound attenuation according to ISO 717-1: $D_{n,f,w} = 65 \text{ dB}$. Lindner double glazing can be combined with the acoustically effective Lindner Logic 100 Timber/Metal-Acoustic.

Most of the partition wall is made of glass. This means that daylight can be channelled from the façade into the corridor.

^{*}This self-declaration refers to the 44 dB version.



DISASSEMBLY



Carbon footprint

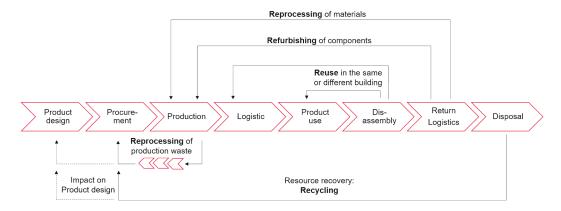
The partial footprint for the disposal stage comprises the modules C1-C4. Dismantling and demolition of the product from the building (C1), transport to landfill (C2), waste treatment (C3) and disposal (C4). The potential for reuse, recovery or recycling is considered in Module D.

Parameters	Unit	C1 Deconstruction/ demolition	C2 Transport	C3 Waste treatment	C4 Disposal	D Reuse/Recovery/Recycling potential
GWP	[kg CO ₂ - eq./m ²]	N/A	N/A	N/A	N/A	N/A



Circular construction

The Life Stereo 125 partition wall is Cradle to Cradle Certified® "Silver" and is characterised by its recyclability. Our recycling options are the reuse or reprocessing of the product or its components, as well as the recovery and recycling of the materials.



Reuse:

Due to the durability of the partitions, they can be reused. Material fatigue of the seals cannot be prevented. They must therefore be replaced. Thanks to the modularity of the product, it can be easily dismantled and installed elsewhere. Partition walls can be installed on any façade axis of the basic grid without interfering with the floor or ceiling.

Refurbishing:

The <u>circular business models</u>: purchase with return or hire make it possible to return the system partition to our production. The necessary processing takes place in the company's own factory. The reconditioned walls are sold as <u>"ReUsed Products"</u> are brought back onto the market.

Reprocessing:

The system partition wall is also highly recyclable. Once the components have been separated by type, they can be recycled.

Recycling:

After separation by type, the materials can be fed into an external recycling cycle.



Healthy construction

As the partition wall can be dismantled non-destructively, disassembly is reduced in terms of dust and noise.



Self-declaration Partition system - Lindner Life Stereo 125 Die Lindner Group ist

Mitalied der GNB

BUILDING CERTIFICATION DGNB 2023

The certification system of the German Sustainable Building Council is one of the world's leading certification systems in the field of sustainable building. The key paradigms are life cycle assessment, holism and performance orientation.



C Ecological quality

ENV 1.1 Climate action and energy

A product-specific life cycle assessment in accordance with DIN EN ISO 14067 can be prepared for the soundproof door leaf.

ENV 1.2 Local environmental impact

The components of the partition wall do not contain lead, mercury, cadmium or chromium (VI) compounds.



Economic quality

ECO 1.1 Life cycle cost

No maintenance costs are incurred during use.



Socio-cultural & functional quality

SOC 1.2 Indoor air quality

Test chamber measurements (AgBB measurement scheme) are available as proof of emissions, e.g. VOC and formaldehyde.

SOC 1.3 Sound insulation and acoustic comfort

The value for the sound reduction index, tested in accordance with ISO 717-1, is available for the Life Stereo 125

Lindner double glazing can be combined with the acoustically effective Lindner Logic 100 Timber/Metal-Acoustic.

SOC 1.4 Visual comfort

Most of the Life Stereo 125 is made of glass. Daylight can therefore be channelled from the façade into the hallway.



Technical quality

TEC 1.6 Circular construction

The partition wall can be dismantled and reused without destruction using standard tools.



Process quality

PRO 2.1 Construction site / construction process

The wall elements are delivered ready-made and are no longer processed on the construction site. This contributes to a low-waste, low-noise and low-dust construction site.

1 © DGNB GmbH



BUILDING CERTIFICATION LEED V4

LEED is a US certification system for ecological building. Various certification levels can be achieved based on a points scale.



Materials and resources

MRp2 Construction and demolition waste management planning

A CWM plan can be created and implemented on request.

MRc1 Building Life-Cycle impact reduction

The partition wall can be reused.

MRc3 Building product disclosure and optimization - sourcing of raw materials

The recycling share (0.5 * pre-consumer + 1.0 * post-consumer) is 18.0 %.

MRc4 Building product disclosure and optimization - material ingredients

The partition wall is <u>Cradle to Cradle Certified</u>® "Silver" certified.

MRc5 - Construction and demolition waste management

The partition wall can be reused or separated by type for recycling.



Indoor Environmental Quality

IEQc2 Low-emitting materials

Test chamber measurements (AgBB measurement scheme) are available as proof of emissions, e.g. <u>VOC</u> and <u>formaldehyde</u>.

IEQc3 Construction indoor air quality management plan

A complete IAQ plan can be created and implemented by specialised personnel on request.

IEQc9 Acoustic Performance

A rated <u>sound reduction index</u> in accordance with ISO 717-1 is available for the partition wall. Lindner double glazing can be combined with the acoustically effective Lindner Logic 100 Timber/Metal-Acoustic.



PRODUCT CERTIFICATION CRADLE TO CRADLE CERTIFIED® V3.1

The Life Stereo 125 partition wall is Cradle to Cradle Certified® "Silver" certified. Certificate number: 5773

This certifies the use of environmentally safe, healthy and recyclable materials, the use of solar energy or other renewable forms of energy, the responsible use of water and the company's social responsibility strategies. The level achieved by the product results from the ratings in the individual categories. Ratings of Basic, Bronze, Silver, Gold and Platinum are possible.





The chemical components of the materials in the door are known and were assessed using the ABC-X rating. An exit or optimisation strategy was developed for materials with an X rating.

The door does not contain any substances that are known or suspected to cause cancer, birth defects, genetic damage or reproductive harm.





All components can be separated by type at the end of use. Simple screw and suspension systems enable non-destructive dismantling and subsequent reuse.



Renewable Energy and Carbon Management

BASIC	BRONZE	SILVER	GOLD	PLATINUM

With certified environmental management and in-house life cycle assessment, the entire Lindner Group is committed to reducing the ecological footprint of production processes, e.g. by reducing energy consumption. Part of the electricity purchased for the final manufacture of the product is sourced from renewable sources. We are continuing to work on increasing the proportion of renewable energy in our production facilities. The primary goal is to save energy in all production processes.





Sedimentation and cleaning of the solids allows the required process water to circulate. This reduces fresh water consumption to a minimum. Water consumption is systematically reduced through a water circulation concept.





The Lindner Group is involved in several social projects that focus on regional and supra-regional areas. The charitable "Hans Lindner Foundation" was established for this purpose in 1991.

As a responsible manufacturer, we are certified according to the international environmental management standard ISO 14001. This serves to further develop our management of scarce resources and the wider environment.



PCDS

PCDS, short for "Product Circularity Data Sheet", presents the circularity of a product using a standardised format. The aim is to provide data, improve the exchange of circularity data within the supply chain and improve product performance in terms of the circular economy. The PCDS credits are not verified by third parties.



Composition/ Information on product constituents

Chemical substance threshold

The threshold value for chemical substances is 0.1 % (1000 ppm)

Product composition disclosure

2120 The composition of the product is certified by third parties

Chemical composition

2207 The chemical substances are disclosed

Hazard statements

- The product does not contain any substances of very high concern from the REACH candidate list in a concentration above 0.1 per cent by mass
- The product does not contain substances classified as CMR 1A or 1B in a concentration above the classification criteria according to CLP Regulation (EC) No. 1272/2008
- 2321 The product does not contain restricted substances that could exceed the limits set out in Annex XVII of REACH
- 2331 The product does not require a warning label according to California Proposition 65

Pre-consumer recycled content

- 2402 Pre-consumer recycling share: between 10 and 25 per cent by mass
- 2411 All chem. components of the pre-consumer recycled content of more than 1 per cent by mass are known
- No hazardous substances in a concentration of more than 0.1 per cent by mass

Post-consumer recycled content

- 2502 <u>Post-consumer recycling share:</u> between 10 and 25 per cent by mass
- 2520 No hazardous substances in a concentration of more than 0.1 per cent by mass

Sourcing statements

2600 The product does not contain any renewable substances



Design for better use

Designed for maintenance & repair

- 3001 Can be serviced and repaired by trained personnel
- 3002 No maintenance or repair necessary if used correctly
- 3020 Spare parts are provided by the manufacturer

Designed for safe operation

3100 No release of harmful dispersions or emissions



Design for disassembly

Demounting

4000 The product can be installed and removed using a plug-in connection

Disassembling

4106 > 95 % of the product can be cleanly separated from the product

Dismantling

4206 > 95 % of the materials can be reused after dismantling or recycled for other products





Design for re-use

Circularity pathways/ scenarios - Product designed for ...

5000	Reuse possible with little or no modification
5001	The product has CE labelling
5010	Reprocessing possible

5035 >75-95% of the product is destined for recycling at the same quality level 5040 Less than 1 % of the product content leaks during the utilisation phase

5050 Products are collected for recycling