

Distributeur SUISSE



REACTIV OFFICE DESIGN

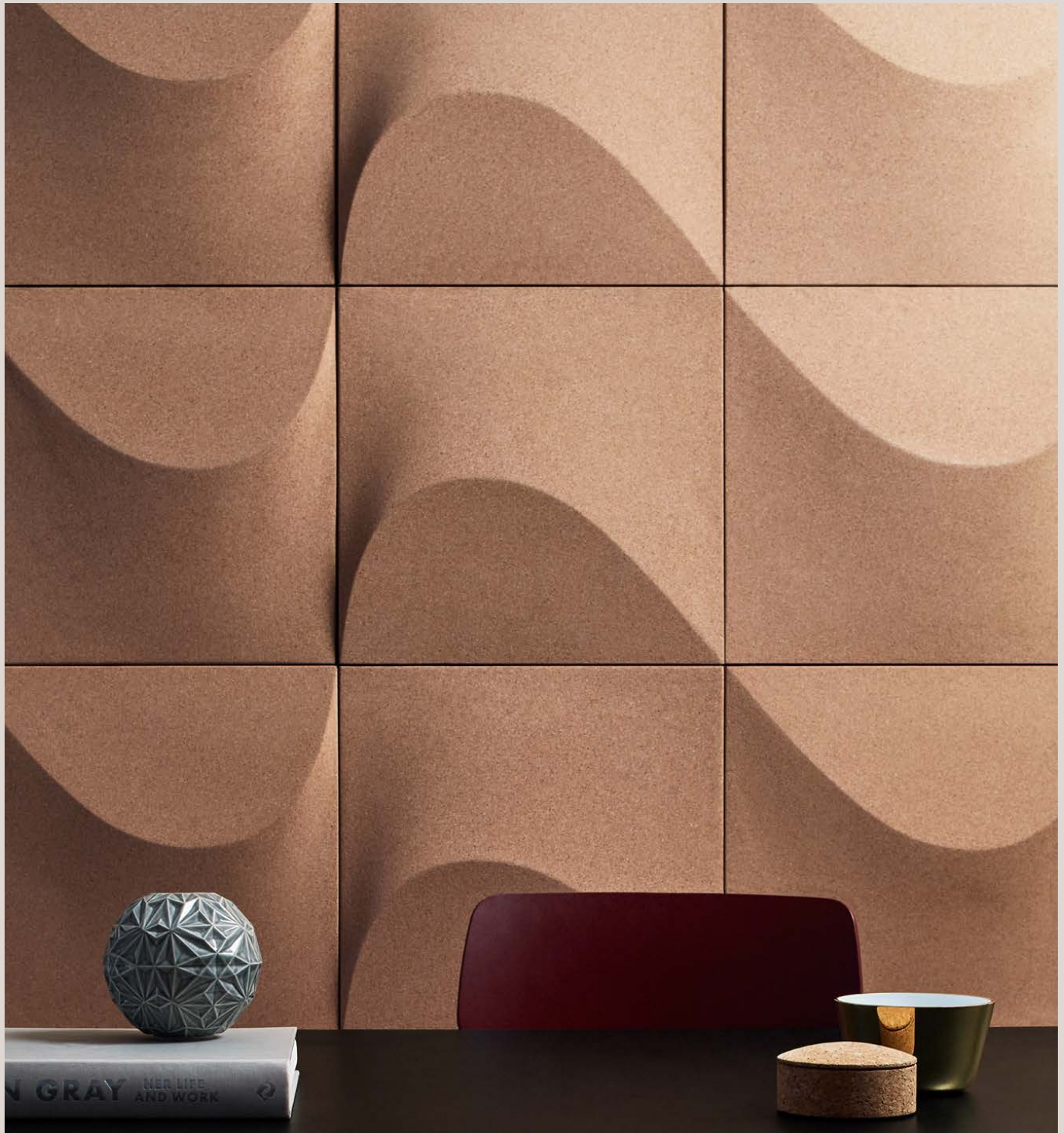
+41 22 797 05 12

www.rod-design.ch



Sahara Wall Panel

Design Gabriel Tan



abstracta



Sahara

Design Gabriel Tan

As simple and spontaneous as a sand formation carved by the wind, its shape is the perfect starting point for creating a multitude of patterns – from the asymmetrical to the symmetrical, from geometrically strict configurations to dynamic, random formations reminiscent of sand dunes.

Specifications

The Sahara Wall Panel is made of cork, a natural material with excellent acoustic properties. Sahara is made out of waste material from the production of wine corks at a factory in Portugal.



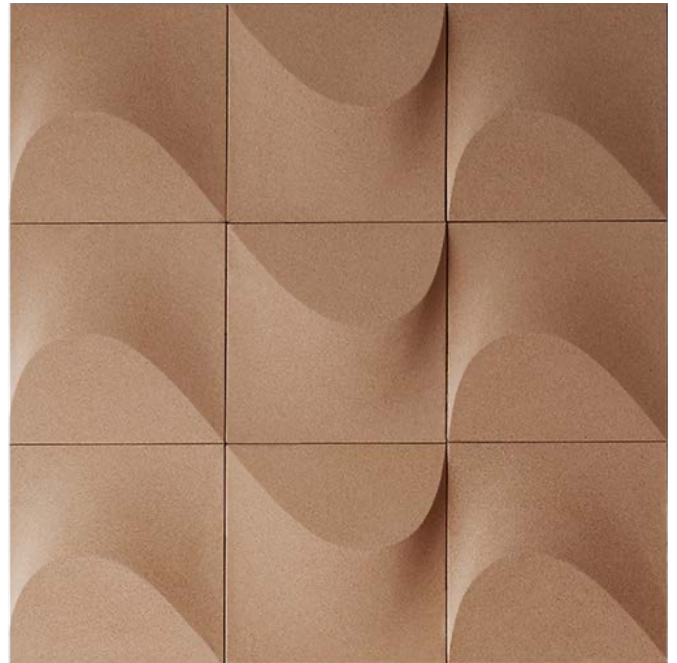
Diffusion

Certificates, images & CAD files:

abstracta.se/product/sahara-wall-panel-cork/

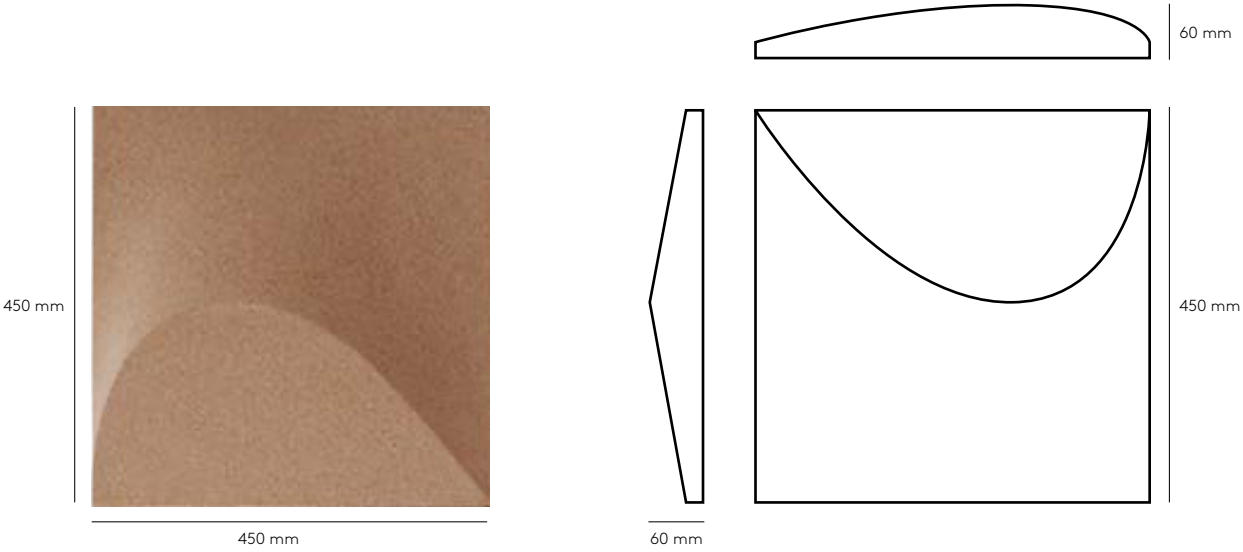
Pattern configuration tool:

conf.abstracta.se/



MÖBELFAKTA

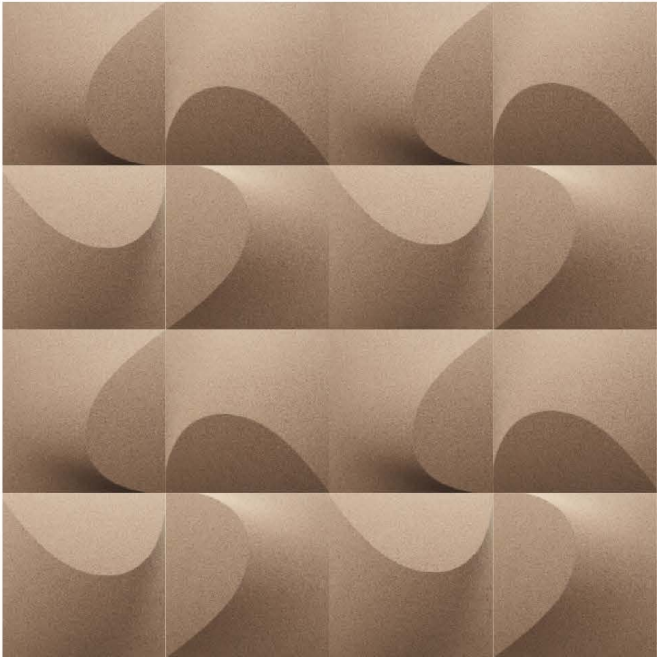
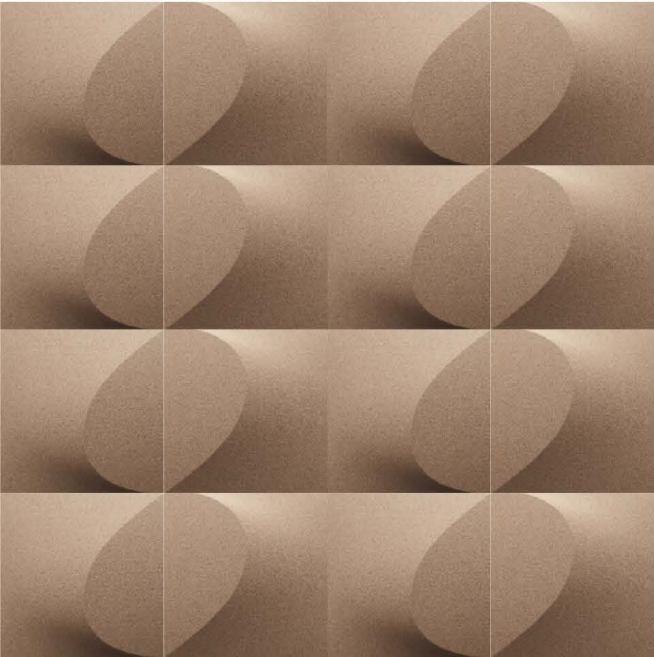
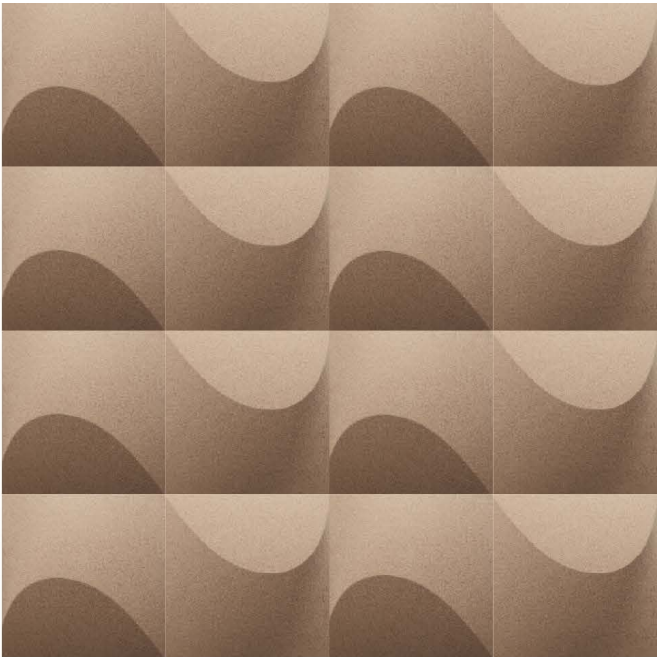
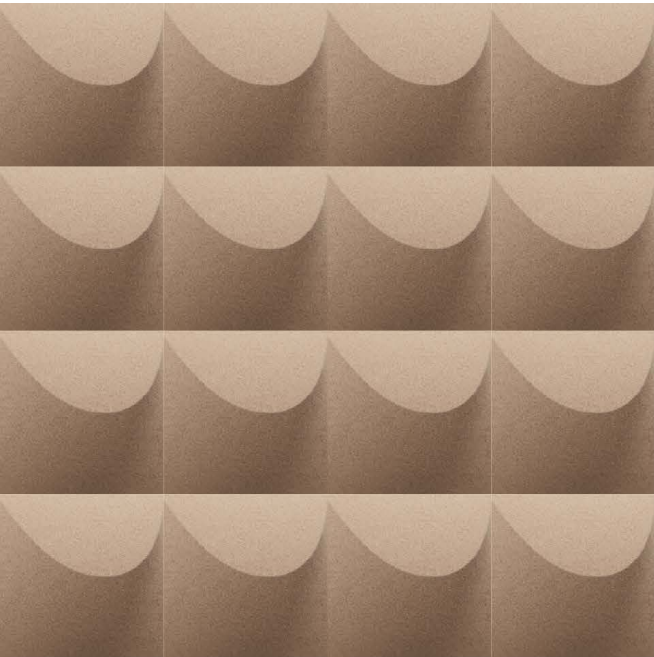
Sahara



Technical Specification

Material	Molded cork with binder.
Dimensions	450x450x60 mm
Weight	3820 g
Colour	Cork
Installation	The wall absorbent is wall-hung using concealed suspension fittings in aluminium (included).
Circularity	Sahara is made out of waste material from the production of wine corks at a factory in Portugal. Cork production occurs in harmony with nature; indeed, it helps to preserve Portugal's beautiful groves and forests of cork oaks. The product is designed to be reused and we offer 10 years spare part warranty. Use our reuse service when the product's lifecycle is over, see more: www.abstracta.se .

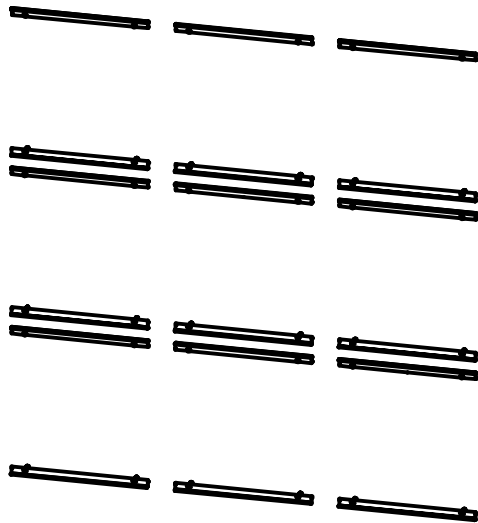
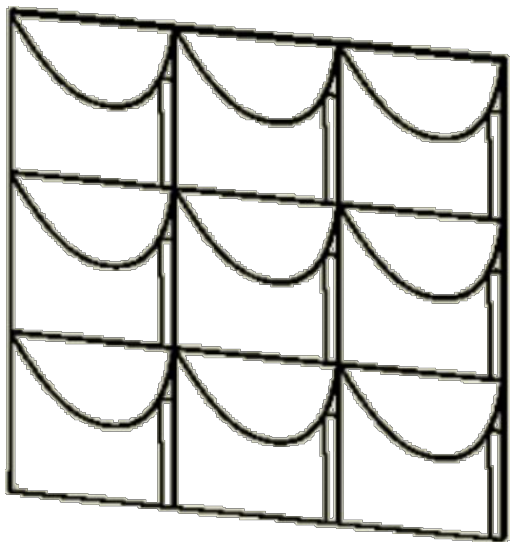
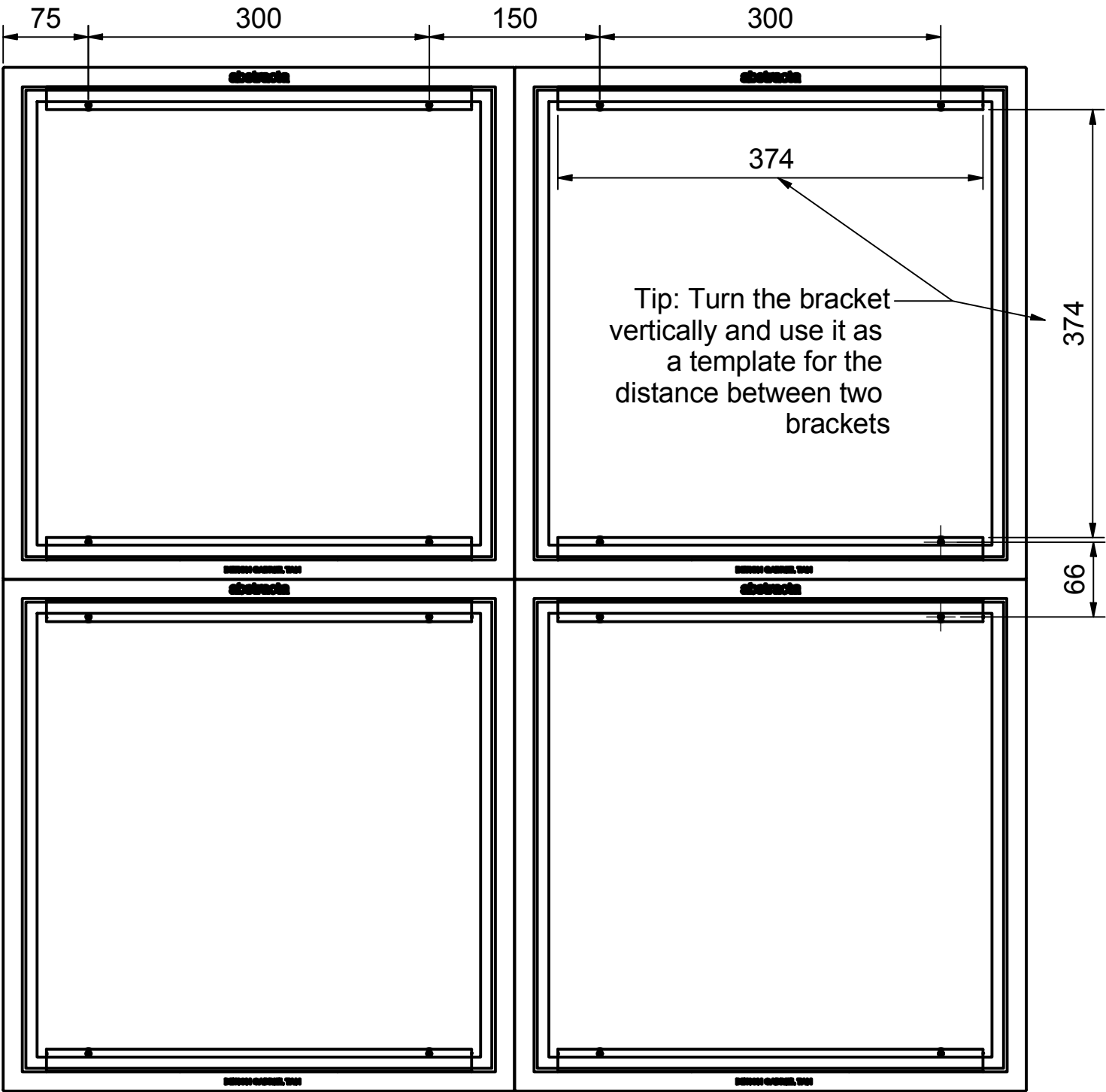
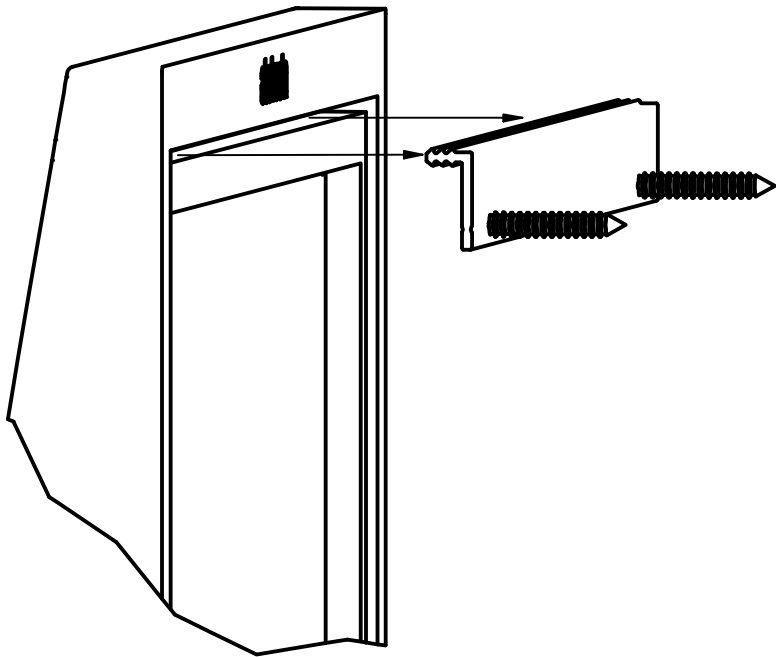
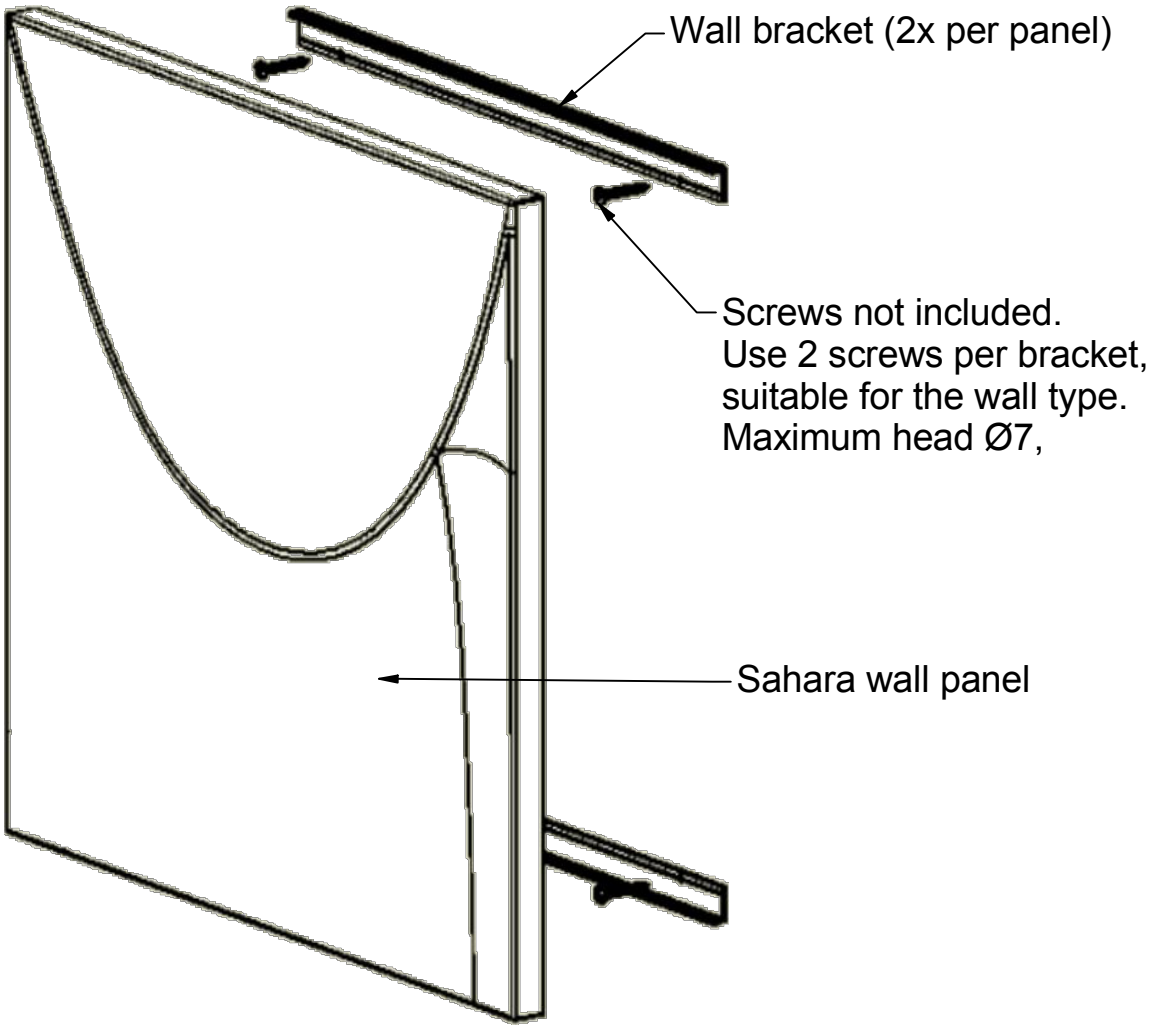
Pattern examples



ABSTRACTA

Sahara

Monteringsanvisning/ Assembly Instructions ver 1.1



Sahara Wall Panel

Designer: Gabriel Tan

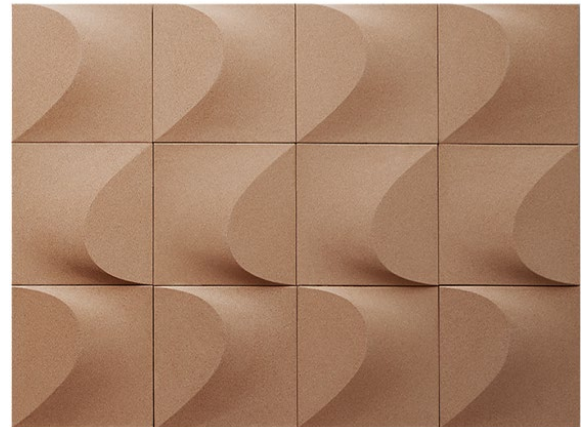
The wall panel created by Gabriel Tan is made of cork, a natural material that offers excellent acoustic properties. As simple and spontaneous as a sand formation carved by the wind, its shape is the perfect starting point for creating a multitude of patterns – from the asymmetrical to the symmetrical, from geometrically strict configurations to dynamic, random formations reminiscent of sand dunes.

Sahara is made out of waste material from the production of wine corks at a factory in Portugal. Cork production occurs in harmony with nature; indeed, it helps to preserve Portugal's beautiful groves and forests of cork oaks, which in turn provide essential habitat for the Iberian imperial eagle and other wildlife. Without cork production, the country's cork forests would risk being replaced by farmland.

Content¹:

Material	Specification	Weight (kg)	Share (%)
Wood	Moulded cork with binder	4.40	88.7
Aluminium	Fittings	0.56	11.3
Total		4.96	100
Packaging – Cardboard	Boxes	0.65	
Packaging – Plastic	Protection and tape	0.03	

¹ Weight may vary



Acoustic qualities:



Diffusion

Product range:

Acoustic Wall Panels

Dimensions (WxHxD mm):

450x450x60

Product information:

Sahara comes in 4 pcs.



PRODUCT DECLARATION

SOUND ABSORPTION COEFFICIENT FOR SURFACE

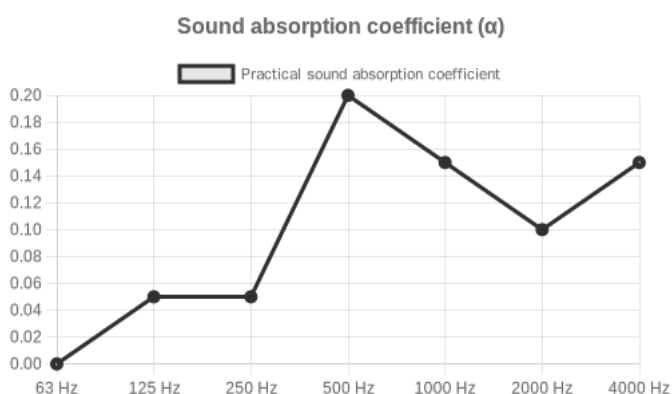
Measured and evaluated according to ISO 354 and ISO 11654

Producer:	Abstracta
Surface:	Sahara
Total Construction Height:	w = 0

Sound absorption coefficient

f(Hz)	Practical sound absorption coefficient (α_p)
63	0.00
125	0.05
250	0.05
500	0.20
1000	0.15
2000	0.10
4000	0.15

$\alpha_w = 0.15$



ORIGINAL TEST REPORT

DATE OF REPORT



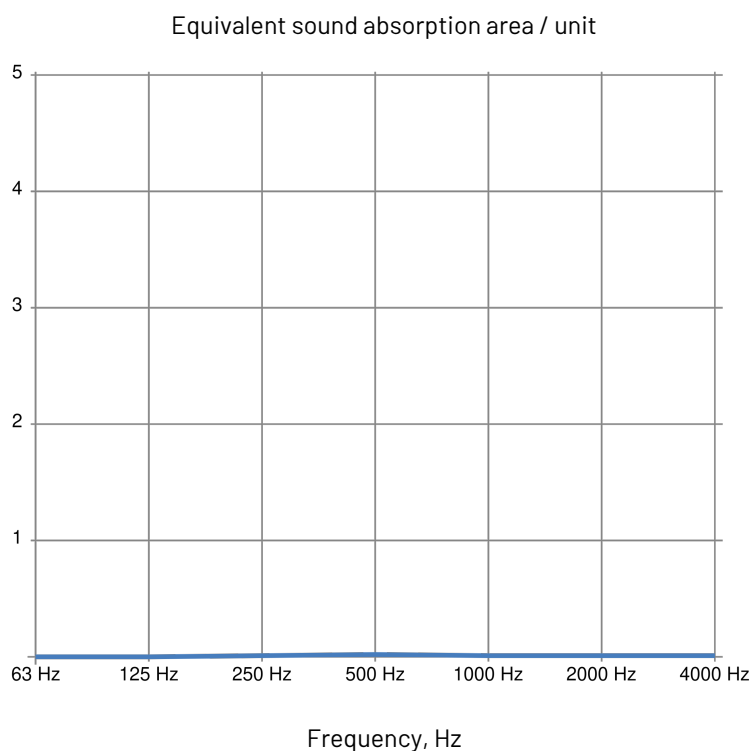


SOUND ABSORPTION AREA FOR OBJECT

Measured and evaluated according to ISO 354 and ISO 20189

Client: Abstracta
Object: Sahara 4 pcs
Size [mm]: w = 880 h = 880 d = 55

Octave band (Hz)	Equivalent sound absorption area / unit (m ² Sabine)
63	0
125	0
250	0.01
500	0.02
1000	0.01
2000	0.01
4000	0.01
N ₁₀ = 1000	



ORIGINAL TEST REPORT

Akustikverkstan report 18-720-M11

DATE OF REPORT

2018-12-13



SOUND ABSORPTION COEFFICIENT FOR SURFACE

Measured and evaluated according to SS ISO 17497:2004

CLIENT: Abstracta

OBJECT: Sahara

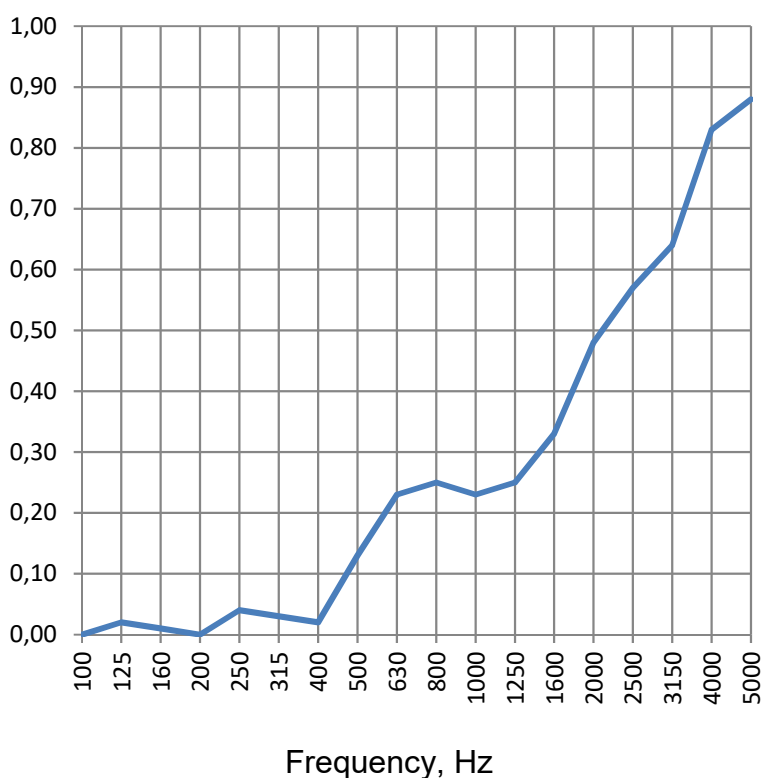
Size [mm]: more than 10 m²

t = 100

1/3 octave band (Hz)	Sound scattering coefficient	
	1/3 octave band, s	Octave band, s
50		
63		
80		
100	0,00	
125	0,02	
160	0,01	
200	0,00	
250	0,04	
315	0,03	
400	0,02	
500	0,13	
630	0,23	
800	0,25	
1000	0,23	
1250	0,25	
1600	0,33	
2000	0,48	
2500	0,57	
3150	0,64	
4000	0,83	
5000	0,88	

Sound sca.
[s]

Sound scattering coefficient



CONDITIONS

Date of test: 2019-01-08

Object area: >10 m²

Date: 2019-04-09

Rev. room volume: 200 m³

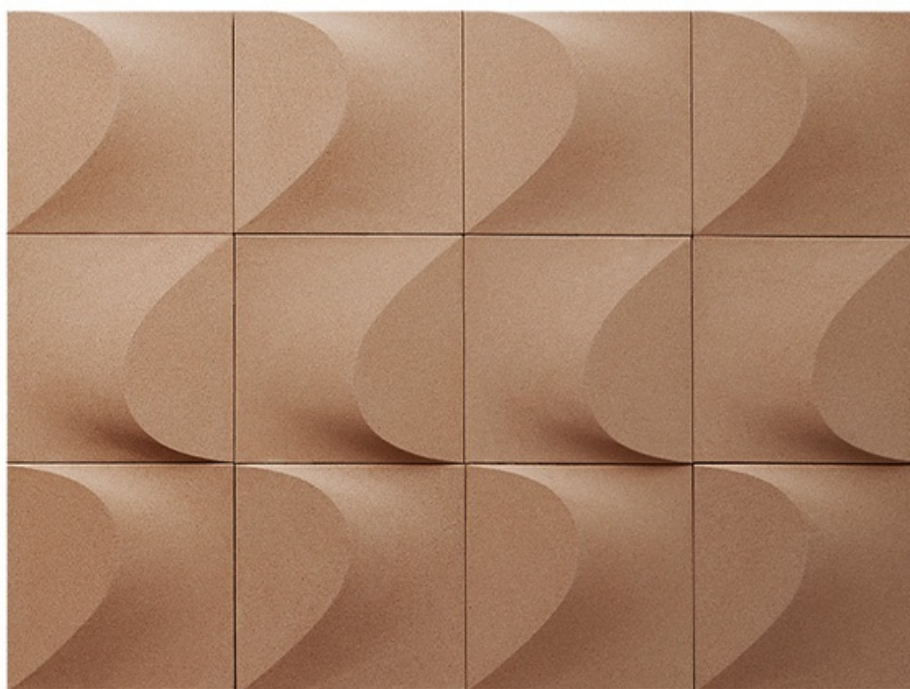
Test report: Akustikverkstan report 18-720-M9

Signature: Delphine Bard

Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Sahara Wall Panel 4 pcs



abstracta

The Norwegian EPD Foundation

Owner of the declaration:

Abstracta AB

Product:

Sahara Wall Panel 4 pcs

Declared unit:

1 pcs

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR

NPCR 026:2022 Part B for Furniture

Program operator:

The Norwegian EPD Foundation

Declaration number:

NEPD-8451-8112-EN

Registration number:

NEPD-8451-8112-EN

Issue date: 11.12.2024

Valid to: 11.12.2029

EPD software:

LCAno EPD generator ID: 598524

General information

Product

Sahara Wall Panel 4 pcs

Program operator:

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway
Phone: +47 977 22 020
web: www.epd-norge.no

Declaration number:

NEPD-8451-8112-EN

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR
NPCR 026:2022 Part B for Furniture

Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Declared unit:

1 pcs Sahara Wall Panel 4 pcs

Declared unit (cradle to gate) with option:

A1-A3,A4,A5,B2,B3,B4,C1,C2,C3,C4,D

Functional unit:

This EPD considers one pack, which is 4 pcs, of Sahara Wall Panels, including packaging. The product is a sound diffusing wall panel. At the end of its life it can be dismantled and recycled or returned to Abstracta for reuse or recycling.

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Norway, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

Owner of the declaration:

Abstracta AB
Contact person: Tim Wisme
Phone:
e-mail: tim.wisme@abstracta.se

Manufacturer:

Abstracta AB

Place of production:

Abstracta AB
Lammengatan 2
363 45 Lammhult, Sweden

Management system:

ISO 9001, 14001 och 45001

Organisation no:

556046-3852

Issue date:

11.12.2024

Valid to:

11.12.2029

Year of study:

2023

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

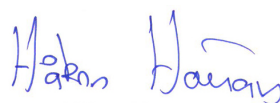
Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD: Tim Wisme

Reviewer of company-specific input data and EPD: Erik Graesen

Approved:



Håkon Hauan
Managing Director of EPD-Norway

Product

Product description:

Designer: Gabriel Tan

The wall panel created by Gabriel Tan is made of cork, a natural material that offers excellent acoustic properties. As simple and spontaneous as a sand formation carved by the wind, its shape is the perfect starting point for creating a multitude of patterns – from the asymmetrical to the symmetrical, from geometrically strict configurations to dynamic, random formations reminiscent of sand dunes.

Sahara is made out of waste material from the production of wine corks at a factory in Portugal. Cork production occurs in harmony with nature; indeed, it helps to preserve Portugal's beautiful groves and forests of cork oaks, which in turn provide essential habitat for the Iberian imperial eagle and other wildlife. Without cork production, the country's cork forests would risk being replaced by farmland.

For more information about the product, visit the product page <https://abstracta.se/product/sahara-wall-panel-cork/>

Product specification

The wall panel consists of moulded cork and is hung on concealed aluminium fittings. See the product sheet for more information: https://lammhults.sharepoint.com/:b/s/abs-webpage/Eb_2CCZFWcVCIBtrBRA71IQBzq5ie_iaya2MGzDBBjc2ag?e=Dc4bjW

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Cork board	4,40	88,71	0,00	0,00
Metal - Aluminium	0,56	11,29	0,00	0,00
Total	4,96	100,00	0,00	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	0,16	23,53	0,00	0,00
Packaging - Paper	0,01	1,47	0,00	0,00
Packaging - Polystyrene	0,02	2,94	0,00	0,00
Recycled cardboard	0,49	72,06	0,49	100,00
Total incl. packaging	5,64	100,00	0,49	

Technical data:

The dimensions of Sahara Wall Panel are 450x450x60. This EPD is made for a pack of Sahara Wall Panels, which includes 4 pcs. For more information on the technical data of Sahara, see the technical data sheet: https://lammhults.sharepoint.com/:b/s/abs-webpage/ET2gttiJ-7BPofRGf1GNFo0B2Fahvb9WCv8LFP_7EW1NGw?e=W5QHW5

Market:

The product is available worldwide. The distance to the market is based on shipping to Scandinavia or Western Europe.

Reference service life, product

Estimated to be 15 years, with a 5-year warranty and a 10-year spare part guarantee.

Reference service life, building

Assumed to be 60 years.

LCA: Calculation rules

Declared unit:

1 pcs Sahara Wall Panel 4 pcs

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

Data quality:

Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Materials	Source	Data quality	Year
Cork board	ecoinvent 3.10	Database	2023
Metal - Aluminium	ecoinvent 3.6	database	2019
Packaging - Cardboard	Modified ecoinvent 3.6	Database	2019
Packaging - Paper	ecoinvent 3.6	Database	2019
Packaging - Polystyrene	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019

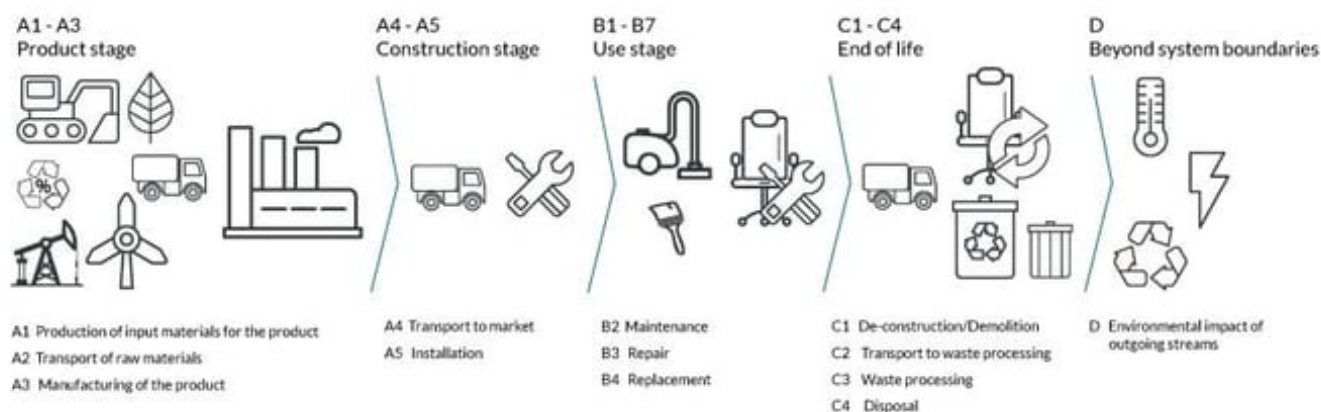
System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MNR	X	X	X	MNR	MNR	MNR	X	X	X	X	X

System boundary:

The EPD is a cradle-to-grave analysis (A1-D), excluding certain B-stages (use phase) assumed negligible.

- A1-A4 stages: These encompass the extraction and production of raw materials, transportation to the production site, the production process itself, and an estimated transport distance to the market.
- A5 stage: This includes the waste generated from the product's packaging after customer assembly.
- B stage: Only B2 is considered relevant, involving assumptions on customer care based on Abstracta's care instructions.
- C and D stages: These cover the use of materials and energy for deconstruction, transportation to waste management, waste processing, disposal of non-processable materials, and the potential for reuse, recovery, and recycling of the product.



Additional technical information:

Care instructions

Cork

Our cork surfaces are kept clean and in good condition by vacuuming them regularly with a soft brush nozzle.

Stain Removal:

Carefully wipe up any stains using a damp cloth. Then dry the surface.

Disinfection of Sahara Wall Panel:

The Sahara Wall Panel is made completely from cork and is approved to be cleaned using disinfectants, enabling it to be used in rooms where fabric covered acoustic panels are not suitable.

Abstracta offers a reuse service for our clients. This involves us collecting worn-out products to facilitate reuse, renovation, or recycling. In order to make circularity easier, most of our products feature replaceable parts, simplifying repair. We do this in the hope that we can help contribute in the transition to a more sustainable future. Read more about the service here: <https://abstracta.se/story/abstracta-is-introducing-a-new-recycling-service-for-used-products-abstracta/> or contact our Sales Support for more information. Otherwise, try to ensure that the product can be reused when possible, or else, dismantle it so that as much of the materials can be recycled as possible.

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Certain assumptions have been made regarding the product's lifetime after it leaves the factory.

- A4-stage: It is assumed that the product is transported to customers in Scandinavia, Germany, the UK, or France, which accounted for 88% of sales in 2023. An average distance to the customer has been calculated based on this data.
- A5-stage: The packaging of the product becomes waste, and the impacts are automatically added according to the EPD tool's assumptions on on-site waste handling.
- B-stage: It is assumed that the customer maintains the product by vacuuming it for 0.5 minutes/m² with a 600 W vacuum cleaner each month.
- C-stage: It is assumed that there is a 50 km distance from the customer to a waste terminal. The remaining values for waste-handling are automatically filled in by the tool.
- D-stage: Automatic values are filled in according to generic data.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Ship, Ferry, Sea (km)	50,0 %	8	0,034	l/tkm	0,27
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	502	0,043	l/tkm	21,59
Assembly (A5)	Unit	Value			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	0,49			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	0,16			
Waste, packaging, polystyrene, for incineration (kg)	kg	0,02			
Waste, packaging, kraft paper, unbleached, to average treatment (kg)	kg	0,01			
Maintenance (B2)	Unit	Value			
Electricity, Nordic (kWh)	kWh/DU	0,73			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	50	0,043	l/tkm	2,15
Waste processing (C3)	Unit	Value			
Copper to recycling (kg)	kg	0,06			
Waste treatment per kg Scrap aluminium, incineration with fly ash extraction (kg)	kg	0,56			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	4,40			
Disposal (C4)	Unit	Value			
Landfilling of ashes and residues from incineration of Scrap aluminium (kg)	kg	0,50			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,05			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of primary aluminium with net scrap (kg)	kg	0,06			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	46,29			
Substitution of electricity, in Norway (MJ)	MJ	3,06			

LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environmental impact							
Indicator	Unit	A1-A3	A4	A5	B2	B3	
 GWP-total	kg CO ₂ -eq	2,44E+00	4,68E-01	1,20E+00	1,06E-01	0	
 GWP-fossil	kg CO ₂ -eq	1,22E+01	4,67E-01	7,45E-02	9,91E-02	0	
 GWP-biogenic	kg CO ₂ -eq	-9,84E+00	1,93E-04	1,12E+00	1,81E-03	0	
 GWP-luluc	kg CO ₂ -eq	1,18E-01	1,68E-04	3,61E-06	5,43E-03	0	
 ODP	kg CFC11 -eq	1,33E-06	1,06E-07	2,30E-09	1,07E-08	0	
 AP	mol H ⁺ -eq	6,52E-02	1,49E-03	5,83E-05	4,57E-04	0	
 EP-FreshWater	kg P -eq	2,31E-03	3,71E-06	9,26E-08	6,56E-06	0	
 EP-Marine	kg N -eq	1,20E-02	3,04E-04	2,04E-05	7,22E-05	0	
 EP-Terrestrial	mol N -eq	1,36E-01	3,39E-03	2,20E-04	9,70E-04	0	
 POCP	kg NMVOC -eq	4,64E-02	1,24E-03	6,15E-05	2,27E-04	0	
 ADP-minerals&metals ¹	kg Sb-eq	1,30E-04	1,28E-05	2,62E-07	1,54E-06	0	
 ADP-fossil ¹	MJ	2,11E+02	7,06E+00	1,54E-01	2,68E+00	0	
 WDP ¹	m ³	2,72E+03	6,78E+00	2,01E-01	2,07E+02	0	

Indicator	Unit	B4	C1	C2	C3	C4	D
 GWP-total	kg CO ₂ -eq	0	0	4,61E-02	8,77E+00	7,56E-03	-8,06E-01
 GWP-fossil	kg CO ₂ -eq	0	0	4,61E-02	5,77E-02	7,55E-03	-7,84E-01
 GWP-biogenic	kg CO ₂ -eq	0	0	1,91E-05	8,71E+00	5,27E-06	-2,93E-03
 GWP-luluc	kg CO ₂ -eq	0	0	1,64E-05	9,09E-06	2,01E-06	-1,91E-02
 ODP	kg CFC11 -eq	0	0	1,04E-08	4,92E-09	1,98E-09	-1,96E-02
 AP	mol H ⁺ -eq	0	0	1,32E-04	7,49E-04	4,71E-05	-5,71E-03
 EP-FreshWater	kg P -eq	0	0	3,68E-07	9,87E-07	8,16E-08	-4,38E-05
 EP-Marine	kg N -eq	0	0	2,62E-05	3,58E-04	1,65E-05	-1,16E-03
 EP-Terrestrial	mol N -eq	0	0	2,93E-04	3,81E-03	1,83E-04	-1,27E-02
 POCP	kg NMVOC -eq	0	0	1,12E-04	9,37E-04	5,25E-05	-3,79E-03
 ADP-minerals&metals ¹	kg Sb-eq	0	0	1,27E-06	2,40E-07	1,10E-07	-1,88E-06
 ADP-fossil ¹	MJ	0	0	6,96E-01	4,73E-01	1,48E-01	-1,04E+01
 WDP ¹	m ³	0	0	6,74E-01	1,15E+00	4,29E-01	-3,44E+02

GWP-total = Global Warming Potential total; GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Remarks to environmental impacts

Additional environmental impact indicators

Indicator	Unit	A1-A3	A4	A5	B2	B3
 PM	Disease incidence	1,45E-06	2,84E-08	7,79E-10	2,42E-09	0
 IRP ²	kgBq U235 -eq	2,00E+00	3,08E-02	6,47E-04	6,11E-02	0
 ETP-fw ¹	CTUe	3,84E+02	5,22E+00	2,09E-01	3,35E+00	0
 HTP-c ¹	CTUh	8,74E-08	0,00E+00	8,00E-12	7,80E-11	0
 HTP-nc ¹	CTUh	3,09E-07	5,71E-09	3,58E-10	2,06E-09	0
 SQP ¹	dimensionless	1,49E+03	4,90E+00	1,02E-01	2,02E+00	0

Indicator	Unit	B4	C1	C2	C3	C4	D
 PM	Disease incidence	0	0	2,82E-09	8,13E-09	8,24E-10	-1,70E-07
 IRP ²	kgBq U235 -eq	0	0	3,04E-03	9,27E-04	6,08E-04	-5,31E-02
 ETP-fw ¹	CTUe	0	0	5,16E-01	3,69E+00	1,08E-01	-2,87E+01
 HTP-c ¹	CTUh	0	0	0,00E+00	1,65E-10	5,00E-12	-1,69E-09
 HTP-nc ¹	CTUh	0	0	5,64E-10	7,82E-09	1,29E-10	-3,52E-08
 SQP ¹	dimensionless	0	0	4,87E-01	7,17E-02	3,41E-01	-2,57E+01

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)

"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

2. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use							
Indicator		Unit	A1-A3	A4	A5	B2	B3
	PERE	MJ	6,32E+02	1,00E-01	2,59E-03	2,63E+00	0
	PERM	MJ	5,55E+00	0,00E+00	-5,55E+00	0,00E+00	0
	PERT	MJ	6,37E+02	1,00E-01	-5,55E+00	2,63E+00	0
	PENRE	MJ	2,11E+02	7,06E+00	1,54E-01	2,72E+00	0
	PENRM	MJ	7,73E-01	0,00E+00	-7,73E-01	0,00E+00	0
	PENRT	MJ	2,11E+02	7,06E+00	-6,20E-01	2,72E+00	0
	SM	kg	4,90E-01	0,00E+00	0,00E+00	0,00E+00	0
	RSF	MJ	1,79E-01	3,59E-03	8,51E-05	2,66E-02	0
	NRSF	MJ	1,19E-01	1,28E-02	3,72E-04	0,00E+00	0
	FW	m ³	3,01E-01	7,51E-04	8,18E-05	1,20E-02	0

Indicator		Unit	B4	C1	C2	C3	C4	D
	PERE	MJ	0	0	9,97E-03	1,57E-02	3,40E-03	-2,61E+01
	PERM	MJ	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	PERT	MJ	0	0	9,97E-03	1,57E-02	3,40E-03	-2,61E+01
	PENRE	MJ	0	0	6,97E-01	4,73E-01	1,48E-01	-1,04E+01
	PENRM	MJ	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	PENRT	MJ	0	0	6,97E-01	4,73E-01	1,48E-01	-1,04E+01
	SM	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF	MJ	0	0	3,57E-04	3,62E-04	8,84E-05	-5,12E-03
	NRSF	MJ	0	0	1,28E-03	0,00E+00	1,78E-02	-1,40E+00
	FW	m ³	0	0	7,45E-05	9,33E-04	1,34E-04	-4,15E-02

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

End of life - Waste

Indicator	Unit	A1-A3	A4	A5	B2	B3
 HWD	kg	2,99E-01	3,63E-04	0,00E+00	2,51E-04	0
 NHWD	kg	1,29E+01	3,40E-01	6,80E-01	1,66E-02	0
 RWD	kg	1,11E-03	4,81E-05	0,00E+00	2,81E-05	0

Indicator	Unit	B4	C1	C2	C3	C4	D
 HWD	kg	0	0	3,59E-05	0,00E+00	5,38E-01	2,00E-03
 NHWD	kg	0	0	3,39E-02	0,00E+00	1,67E-02	-2,41E-01
 RWD	kg	0	0	4,74E-06	0,00E+00	8,88E-07	-4,69E-05

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

"Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3}$ = 0,009"

*INA Indicator Not Assessed

End of life - Output flow

Indicator	Unit	A1-A3	A4	A5	B2	B3
 CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0
 MFR	kg	4,21E-02	0,00E+00	6,14E-01	0,00E+00	0
 MER	kg	1,36E-01	0,00E+00	2,07E-02	0,00E+00	0
 EEE	MJ	8,34E-02	0,00E+00	7,30E-02	0,00E+00	0
 EET	MJ	1,26E+00	0,00E+00	1,10E+00	0,00E+00	0

Indicator	Unit	B4	C1	C2	C3	C4	D
 CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 MFR	kg	0	0	0,00E+00	5,81E-02	0,00E+00	0,00E+00
 MER	kg	0	0	0,00E+00	4,96E+00	0,00E+00	0,00E+00
 EEE	MJ	0	0	0,00E+00	3,08E+00	0,00E+00	0,00E+00
 EET	MJ	0	0	0,00E+00	4,66E+01	0,00E+00	0,00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3}$ = 0,009"

*INA Indicator Not Assessed

Biogenic Carbon Content

Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	2,38E+00
Biogenic carbon content in accompanying packaging	kg C	3,06E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Electricity, Sweden (kWh)	ecoinvent 3.6	54,94	g CO ₂ -eq/kWh

Dangerous substances

The product contains no substances given by the REACH Candidate list.

Indoor environment

Additional Environmental Information

Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO ₂ -eq	2,44	0,47	13,04	12,23
Total energy consumption	MJ	842,71	7,17	856,78	818,89
Amount of recycled materials	%	7,62			

Additional environmental impact indicators required in NPCR Part A for construction products

Indicator	Unit	A1-A3	A4	A5	B2	B3
GWPIOBC	kg CO ₂ -eq	1,24E+01	4,68E-01	7,45E-02	1,44E-01	0

Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO ₂ -eq	0	0	4,61E-02	5,82E-02	7,63E-03	-7,78E-01

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Bibliography

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.
 ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines.
 EN 15804:2012+A2:2019 Environmental product declaration - Core rules for the product category of construction products.
 ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.
 ecoinvent v3, Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.
 Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no Report number: 07.21
 Ruud et al., (2023) EPD generator for NPCR026 Part B for Furniture - Background information for EPD generator application and LCA data, LCA.no report number 01.23
 NPCR Part A: Construction products and services. Ver. 2.0. March 2021, EPD-Norge.
 NPCR 026 Part B for Furniture. Ver. 2.0 March 2022, EPD-Norge.

 epd-norge Global program operator	Program operator and publisher The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway	Phone: +47 977 22 020 e-mail: post@epd-norge.no web: www.epd-norge.no
abstracta	Owner of the declaration: Abstracta AB Lammengatan 2, 363 45 Lammhult, Sweden	Phone: e-mail: tim.wisme@abstracta.se web: www.abstracta.se
	Author of the Life Cycle Assessment LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	Developer of EPD generator LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	ECO Platform ECO Portal	web: www.eco-platform.org web: ECO Portal



MÖBELFAKTA CERTIFICATE

PRODUCT NAME: Sahara Wall Panel
Sound absorbent
187 700 00
Wall absorbent in molded cork with good diffusion properties. Mounted on hidden wall fittings. Can be mounted in different directions to create comprehensive patterns on large walls. Dimensions (WxHxD): 450x450x60 mm.

DESIGNER: Gabriel Tan

COMPANY: Abstracta AB

REG.NUMBER: 220190312

USE CLASS: Non-domestic, Office, School

VALIDITY:: 2024-01-11 - 2029-03-12 and applies provided that the product meets the applicable requirements. If Möbelfakta Sverige AB changes the Requirements Specification for Möbelfakta, the Licensee is obliged to adapt the declared product within the transitional period announced in the requirements specification in order for the certificate to be valid.
All approved products are published on www.mobelfakta.se.
<https://www.mobelfakta.se/Details.html?id=1739>

THIS PRODUCT HAS BEEN DECLARED AND APPROVED TO THE CRITERIA OF MÖBELFAKTA:

-  **QUALITY** – THE PIECE OF FURNITURE MUST MEET ESTABLISHED INTERNATIONAL TECHNICAL STANDARDS
-  **ENVIRONMENT** – ALL STAGES OF THE MANUFACTURING PROCESS MUST BE GREEN. FROM RAW MATERIALS TO FINISHED PRODUCT
-  **RESPONSIBLE SUPPLY CHAINS** – ALL STAKEHOLDERS IN THE SUPPLY CHAIN TAKE SOCIAL, ENVIRONMENTAL AND ETHICAL RESPONSIBILITY



Tests and standards

Acoustics

Absorption ISO 20189: $N_{10}=1000$

Absorption ISO 11654:

$\alpha_w=0.15$, NRC=0.15, Class E

Scattering ISO 17497:2004

Flame resistance

ISO 13501-1:2018: E

Surface resistance

EN 12720:2009: 5¹

¹ Surface disinfection

Sustainability

As a part of our sustainability work, we are certified according to following standards and quality labels:

ISO 9001, ISO 14001 & ISO 45001



Management systems for quality, environment, occupational health, and safety.

We and our suppliers need to commit to Lammhult Design Group's Code of Conduct.



Möbelfakta

This product has been declared and approved to criteria of Möbelfakta:

Quality: This piece of furniture must meet established international technical standards

Environment: All stages of the manufacturing process must be green, from raw materials to finished product.

Responsible supply chains: All stakeholders in the supply chain take social, environmental, and ethical responsibility.

Emissions

EN ISO 16000-9:2006:

- TVOC – Pass
- Formaldehyde – Pass
- CMR 1A+1B – Pass
- Single VOC ($\mu\text{g}/\text{m}^3$) – Pass

Free from added flame-retardant chemicals as standard.



EPD

An EPD is available for the product. The EPD has been third-party reviewed and is published at EPD Norway. The results of the EPD shows that Sahara Wall Panel 4 pcs releases 2.44 kg CO_{2e} from Cradle-to-Gate. The full EPD is available here: [EPD - Sahara Wall Panel](#)



Acoustic facts

The impact of our acoustic products is presented at acousticfacts.com, where products can be compared in an objective way. This ensures that all technical data is accurate and meets international, European, and Swedish standards.

Abstracta's reuse service

We offer a recycling service for our customers. This means that we collect used sound absorbers and other products for renovation, reuse or recycling. To facilitate circularity, our products consist of exchangeable parts, which simplifies repair, reuse and recycling. Contact our sales support team for more information.

5-year warranty and 10-year spare parts warranty.

abstracta

Abstracta AB
Box 75, SE-363 03
Lammhult, Sweden
Phone +46 472 26 96 00
info@abstracta.se

Global Goals

The UN Sustainable Development Goals are the basis of our environmental work. We focus on the five goals to which we can contribute most.

Goal # 3 – Good health and well-being

Goal # 5 – Gender equality

Goal # 8 – Decent work and economic growth

Goal # 12 – Responsible consumption and production

Goal # 15 – Life on land

Visit the product page for more information:

[Sahara Wall Panel - Abstracta](#)

Care instructions

Cork

Our cork surfaces are kept clean and in good condition by vacuuming them regularly with a soft brush nozzle.

Stain Removal:

Carefully wipe up any stains using a damp cloth. Then dry the surface.

Disinfection of Sahara Wall Panel:

The Sahara Wall Panel is made completely from cork and is approved to be cleaned using disinfectants, enabling it to be used in rooms where fabric covered acoustic panels are not suitable.