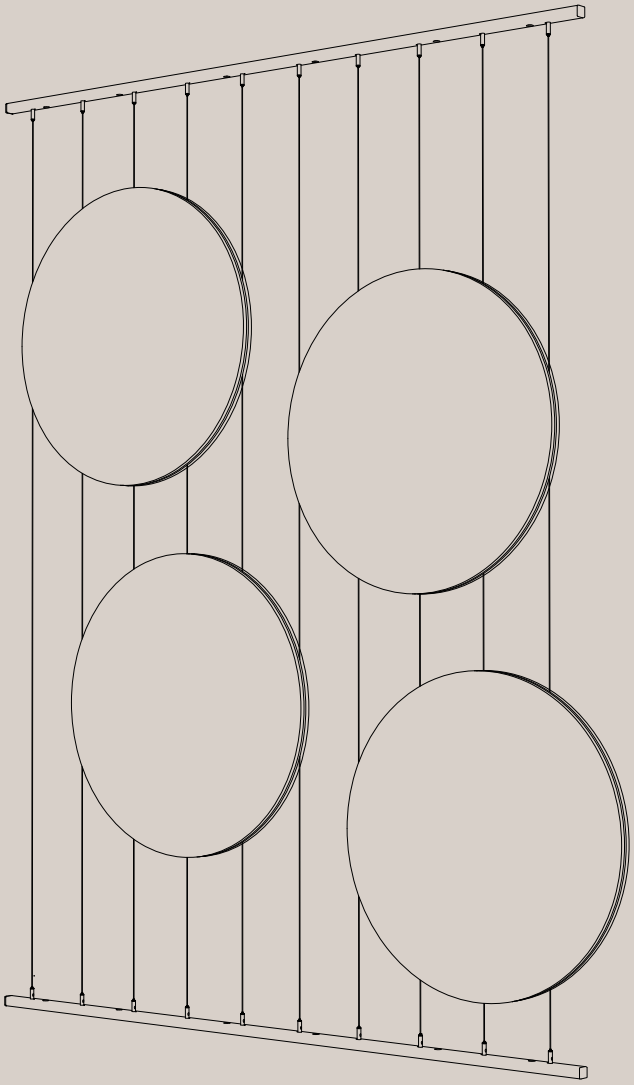
IMPACT ACOUSTIC®



Helios
Tensed Division

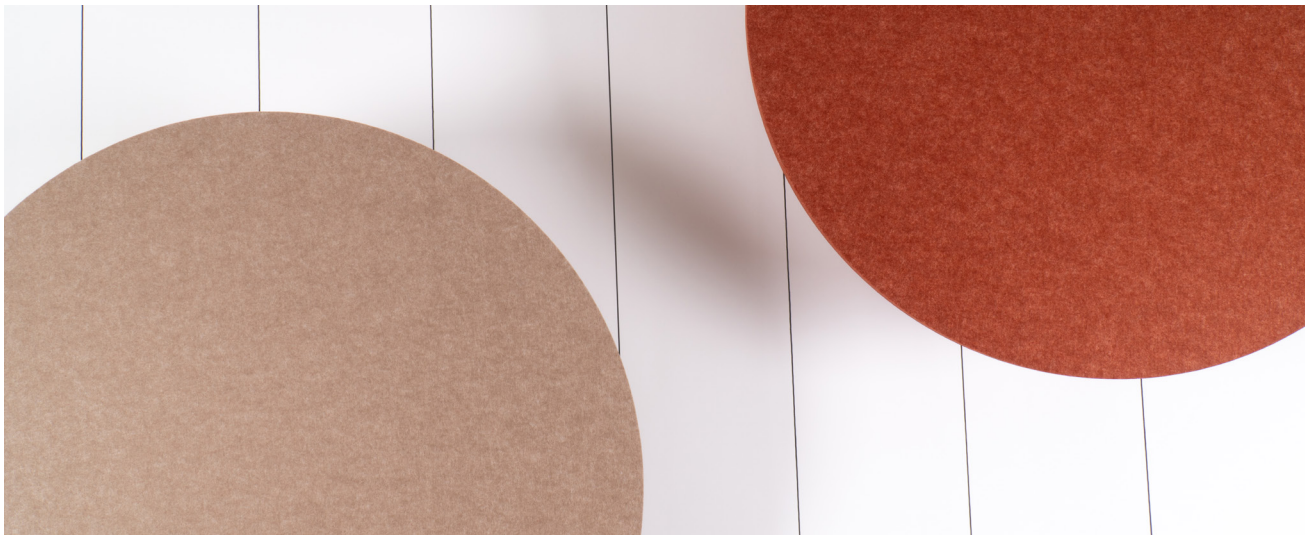
747.12.10.000.00

TECHNICAL DATA SHEET

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spec@habitatmatter.com

Helios Tensed Division

General Information



Data

Applicable article numbers

747.12.10.000.00

Dimensions

Height	2400 mm / 94.5” - 3600mm / 142" (recommended range)	
Width	1800 mm	70.9”
Thickness	40 mm	1.57”

Custom solutions available

Material

Panel	100% PET (60% post-consumer) in 45 colours.
Frame	Steel profiles and wires (black RAL 9005)

Extended document available

Weight

12mm PET Panels	8.7 kg	19.18 lbs
Installation hardware	7.2 kg	15.87 lbs

Included

Panels (4x2 sides)

Installation set

Installation guide

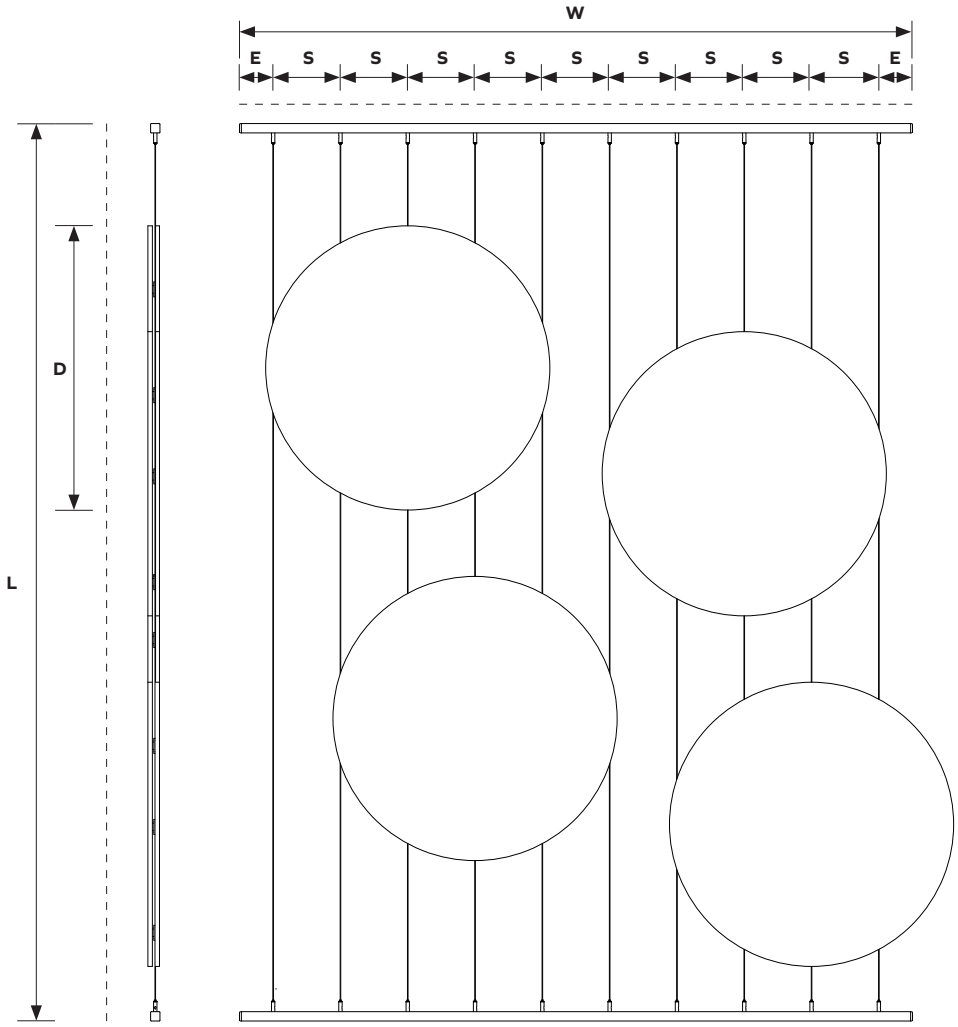
Warranty 10 years

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Geometry Information

Custom solutions available



Dimensions

W	Total width	1800 mm / 70.9”
L	Total height	2400 mm / 94.5” - 3600mm / 142" (recommended range)
E	Edge width	90 mm / 3.5”
S	Spacing width	180 mm / 7.1”
D	Diameter circles	760 mm / 29.9”

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Installation Overview

Extended document available

1. Square profile

Attach steel profiles to the ceiling and floor in the intended place. (Mounting screws not included). Cover the gaps with provided caps.

Run the cables through the gripers and tighten the intended distance.



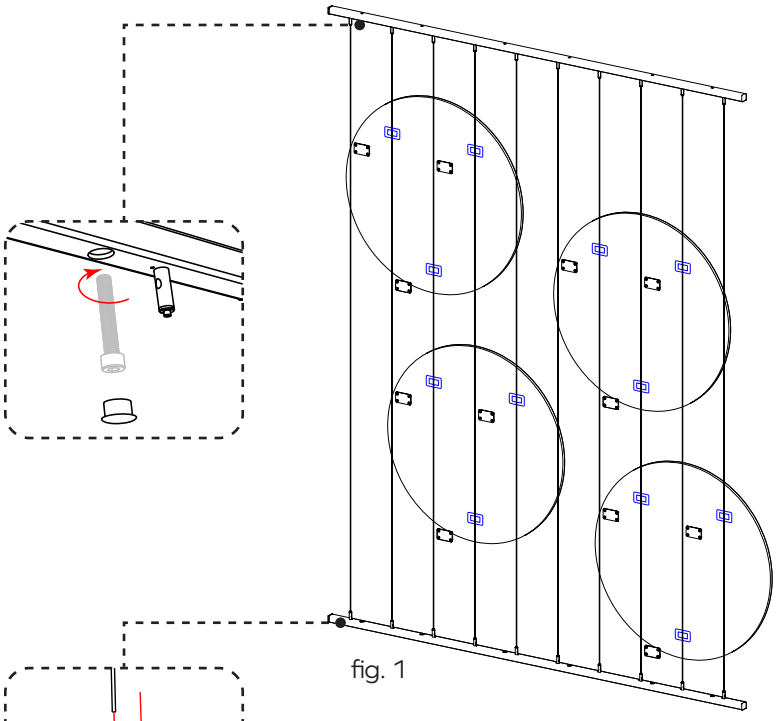
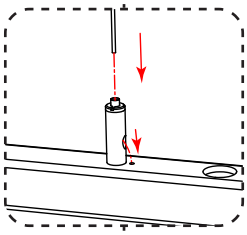


fig. 1

2. Screws

Position the panels as shown on fig. 1 and screw in provided metal plates so that the cables are locked between the plate an the panel.



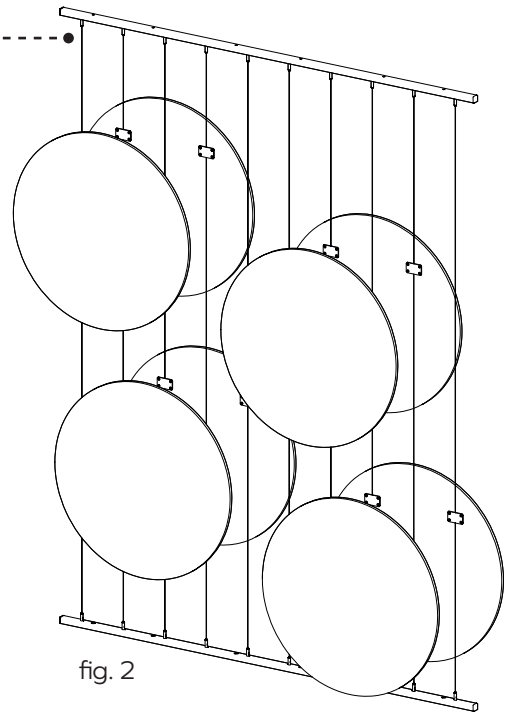


fig. 2

3. Wire ropes

Install magnets on the back side of the second set of PET panels in the market positions and attach them to the previously installed metal plates as shown on fig 2.

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ARCHISONIC®
Colours

Material brochure available

									
Name	Snow White	Cloud	Smoke	Slate	Charcoal	Raven	Ground	Gull	Milk
Code	**500**	**103**	**442**	**444**	**542**	**550**	**108**	**144**	**404**
NCS	S 0300-N	S 1002-B	S 3005-R80B	S 4500-N	S 7502-B	S 8500-N	S 5005-Y20R	S 2502-Y	S 0502-Y
									
Name	Linen	Dune[S]	Jute	Fallow[S]	Warm Stone	Truffle[S]	Sunshine	Honeycomb	Electric Orange
Code	**107**	**104**	**920**	**238**	**105**	**539**	**846**	**139**	**464**
NCS	S 1505-Y30R	S 2005-Y	S 3010-Y30R	S 5010-Y30R	S 3010-Y50R	S 8502-R	S 1040-Y10R	S 2050-Y20R	S 0580-Y70R
									
Name	Terracotta	Soft Coral	Cinnabar[S]	Shell Pink	Garnet	Poster Red	Hot Pink	Grape	Marine Blue
Code	**239**	**516**	**725**	**102**	**724**	**662**	**140**	**540**	**864**
NCS	S 4040-Y70R	S 2020-Y90R	S 6030-R	S 0510-R30B	S 5040-R10B	S 1080-R	S 2060-R20B	S 5040-R40B	S 4050-R70B
									
Name	Midnight	Royal Blue[S]	Winter Sky	Deep Sea	Nocturne[S]	True Navy	Ice Blue	Pacific Ocean	Lagoon[S]
Code	**810**	**865**	**410**	**918**	**866**	**194**	**304**	**432**	**917**
NCS	S 7020-R70B	S 3560-R80B	S 2020-R90 B	S 5020-R90B	S 8010-R90B	S 8005-B	S 0510-B	S 3040-B	S 7020-B30G
									
Name	Succulent	Spearmint	Seafoam[S]	Nordic Pine	Moss	Grove	Pistachio[S]	Lichen	Fern
Code	**712**	**706**	**710**	**311**	**439**	**317**	**315**	**160**	**180**
NCS	S 3020-B30G	S 1010-B90G	S 3010-G30Y	S 5030-G10Y	S 2040-G40Y	S 7020-G30Y	S 5020-Y	S 4005-Y	S 6010-G90Y

These NCS codes are the closest visual match available and may not be exact to blended fibres.
S - Solid Colours, additional charge might apply.

ARCHISONIC®

Colours

Experience our ARCHISONIC® Felt material with a stunning selection of 45 colours across 9 distinct families, thoughtfully curated by *Colour Hive* in London. Effortlessly combine colours to create harmonious palettes that suit your preferences. Discover more in our Materials brochure and order your free sample box today.

Colour fastness

Class 6

ISO 105-B02:A1

Order a free sample box

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ARCHISONIC® Felt
Material Specification

Product Name	ARCHISONIC® Felt
Content	100% PET (60% certified post-consumer content)
Thickness[1]	12mm (0.47")
Max. Size	1200x2800mm (47"x110")
Acoustic[2]	**ASTM:** NRC=0.6 **ISO**: αw=0.65
Density[1]	2400 g/m² (0.49 lbs/ sqft)
Colour Fastness	**Class 6** ISO 105-B02:A1
Colours	**45 colours** (see ARCHISONIC® Felt Colour page for more information)
Maintenance	For daily cleaning we recommend alcohol solution (75%), e.g. Pantasept. In case of contamination by dust or fluff, use feather duster or a regular vacuum cleaner. For heavy dirt, treat the material with hydrogen peroxide.
Lead time[3]	21 days
Fire Rating[4]	DIN EN 13501-1: **B-s1, d0** ASTM E84 **Class A**
VOC Emission	**Indoor Air Comfort® GOLD** Compliance with leading international indoor air quality standards and sustainable building schemes across Europe and North America, including LEED, WELL, BREEAM, M1, AgBB, EMICODE, EU Taxonomy and REACH requirements. Additional documentation available upon request.
Thermal Conductivity[5]	12 mm: 0.039 W/m·K
Thermal Resistance[5]	12 mm: 0.30 m²K/W
Certifications	Declare label, Cradle to Cradle, UL Environmental Product Declaration, Member of US Green Building Council, Ecobau 1st Priority, Climate-KIC, SCS Recycled Content
Durability	Contract

1 - all values are nominal 2 - measured with 300mm air cavity 3 - depending on the location and type of product
4 - the following colours carry a B-s2 fire certificate rating: Hot Pink 140 12mm, Lichen 160 12mm, True Navy 194 24mm, Pacific Ocean 432 24mm, Pacific Ocean 432 12mm, Electric Orange 464 24mm, Soft Coral 516 24mm, Raven 550 24mm, Raven 550 12mm, Poster Red 662 12mm, Garnet 724 12mm, Midnight 810 24mm, Marine Blue 864 24mm
5 - values based on third-party testing according to ASTM C518.

Climate-KIC is supported by the EIT, a body of the European Union

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Helios Tensed Division

Acoustic Performance

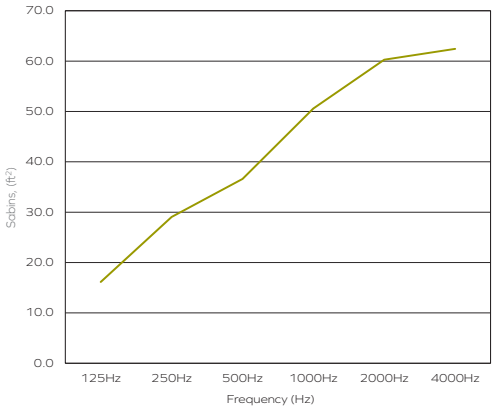
University of Stuttgart
Germany

Testing Standards

ISO 354:2003	Acoustics — Measurement of sound absorption in a reverberation room
ISO 11654:1997	Acoustics — Sound absorbers for use in buildings — Rating of sound absorption
ISO 20189:2018	Acoustics — Screens, furniture and single objects intended for interior use — Rating of sound absorption and sound reduction of elements based on laboratory measurements
ASTM C423-17	Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
ASTM E795-16	Standard Practices for Mounting Test Specimens During Sound Absorption Tests

Acoustic Test Results	αw	SAA	NRC
24mm Wall Panel 1800x2400mm (Plain)	0.55 (H)	0.57	0.55
24mm Wall Panel 1800x2400mm (Perforated pattern)	0.45 (H)	0.47	0.45
12mm Wall Panel 1200x2800mm (Plain)	0.4 (H)	0.39	0.40
12mm Wall Panel 1200x2800mm (Perforated pattern)	0.35 (H)	0.32	0.35

Measurement used Pink Noise as excitation signal in a reverberant room.

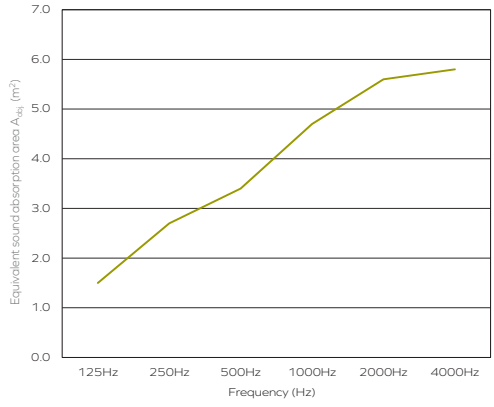


Acoustic Performance - ASTM Sabins , ft^2

Frequency (Hz)	125	250	500	1000	2000	4000
12mm Helios 1800mm x 3500mm	16.15	29.06	36.60	50.59	60.28	62.43

The graph represents the Sabins (ft^2) in the third octave band center frequencies.

● 12mm Helios 1800mm x 3500mm



Acoustic Performance - ISO A_{obj} , m^2

Frequency (Hz)	125	250	500	1000	2000	4000
12mm Helios 1800mm x 3500mm	1.5	2.7	3.4	4.7	5.6	5.8

The graph represents the equivalent sound absorption per object (A_{obj}) in the third octave band center frequencies.

● 12mm Helios 1800mm x 3500mm

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Reference Projects









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