IMPACT ACOUSTIC®



ARCHISONIC Cotton³ Mosaic

938.10.24.000.00 938.11.24.000.00

TECHNICAL DATA SHEET

ARCHISONIC[®] Cotton Mosaic General Information



Data

Applicable article numbers

938.10.24.000.00	ARCHISONIC® Cotton Mosaic Refined
938.11.24.000.00	ARCHISONIC® Cotton Mosaic Soft

Dimensions¹

Length	100mm	3.94″
Height	100mm	3.94″
Thickness	24mm	0.94″

Material

Wall Covering

ARCHISONIC® Cotton Mosaic (100% circular) in 24 colors

This material should be handled with care in order to avoid the tiles being damaged or miscoloured.

Weight²

24mm / 0.95"

6.0 kg/m²

1.13 lbs/ft²

Included

ARCHISONIC® Cotton Mosaic (100 pieces)



1 - all dimensions are nominal 2 - all weights are nominal

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

IMPACT ACOUSTIC® ARCHISONIC® Cotton Mosaic 10.06

10.06.25 (Switze (USA) (Philipp

(Switzerland) co (USA) us (Philippines) pl

connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com

Installation

guide

(+41) 41 244 14 00 (+1) 646 918 1581 (+63) 285 80 02 50



2

Take back program



ARCHISONIC[®] Cotton Mosaic Specification Guide





Color



Quantity multiples of 100 tiles (1 m² / 10^{3/4} ft²)*

* ARCHISONIC® Cotton Tile Mosaic are supplied in a pack of 100 tiles (1m²/ $10^{3/4} ft^2)$ 3 - patent pending: EU:23211902.4, IT:10202200024846, USA:18/522,889

IMPACT ACOUSTIC® ARCHISONIC® Cotton Mosaic 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC[®] Cotton Mosaic Geometry Information

938.10.24.000.00 - ARCHISONIC® Cotton Mosaic Refined



Dimensions table

L	Length	100 mm	3.94″
н	Height	100 mm	3.94"
т	Thickness	24 mm	0.9″

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

ARCHISONIC* Cotton Mosaic 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC® Cotton Mosaic Geometry Information

938.11.24.000.00 - ARCHISONIC® Cotton Mosaic Soft



Dimensions table

L	Length	100 mm	3.94″
н	Height	100 mm	3.94"
т	Thickness	24 mm	0.9″

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

 IMPACT
 A C O U S T I C ®

 ARCHISONICe Cotton Mosaic
 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com (+41) 41 244 14 00 (+1) 646 918 1581 (+63) 285 80 02 50



5

ARCHISONIC® Cotton Mosaic Canvas - Parametric Design Service

In order to fully utilize the potential of ARCHISONIC[®] Cotton **Mosaic** Tiles and help you save the time to focus on what is important for you, we created **Canvas**.

Canvas is a part of our parametric design toolbox services. Simply provide us with the wall boundry and the design intention and we will generate a **unique tile layou**t for you.

We can create multiple desing options for your desired wall area using 2 or 3 ARCHISONIC_® Cotton Colours (p. 7-9). It is also possible to convert your **logo** or any other **raster image** (.jpeg .png) into a tile pattern.

For more information, please <u>contact</u> our consultants.



pic. 01 CANVAS inplementation example for wall 2500 \times 2500 wall with door opening.

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

ARCHISONICe Cotton Mosaic 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC_® Colours

Our innovative Archisonic Cotton wall tiles, crafted from sustainably sourced cotton linters mixed with kaolin, earth pigments, and water, showcase a unique and natural texture. Due to the organic nature of these materials, slight variations in colour and texture are a testament to their authenticity and eco-friendly production process, with these variations being more noticeable in darker colours than in brighter ones. These subtle differences not only enhance the aesthetic appeal of each tile but also highlight our commitment to creating beautiful, fully circular products with superior noise-absorbing properties.

Neutrals

24 mm

Neither warm nor cool, this group features three tones of Shadow. Designer White, as the cleanest white available is an essential standalone colour.



Shadow **20**



Shadow **30**

Shadow 50



00

Warm Neutrals

24 mm

A timeless and classic warm neutral scale represented by three tones of Flax.



ARCHISONICe Cotton Mosaic 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com (+41) 41 244 14 00 (+1) 646 918 1581 (+63) 285 80 02 50



7

ARCHISONIC_® Colours

Yellows+Oranges

24 mm

A duo tone of Wheat and three tones of Almond create a small group of yellows and oranges.





24 mm

Featuring a duo tone of Rose and a duo tone of the shaded red, Pigeon.



IMPACT ACOUSTIC® ARCHISONIC® Cotton Mosaic 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC® Colours

Blues

24 mm

A classic, easy blue scale represented by three tones of Denim.



10

Denim

30



Denim 40

Greens

24 mm

A duo tone of the fresher Aloe and three tones of the more shaded Sage create a commercial group of greens.



IMPACT ACOUSTIC® ARCHISONIC® Cotton Mosaic 10.06.25 (Switzerland) (USA) (Philippines)

connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC® Cotton

Density

250kg/m³ 15.6lbs/ft³

Tile thickness

24mm 0.94″

Composition

73% cotton cellulose, 26% mineral components (micronized kaolin, colouring earths, fireproof salts), <1% acrylic resin

Fire rating

B-s1, d0 Class 1 EN ISO 13823:2010 (tested with Pattex adhesive) Class A ASTM E84

VOC emission

A+ UNI EN ISO 16000-9: 2006 + ISO 16000-6: 2011

Care instructions

Gently clean with a vacuum cleaner or a dry cloth. Do not use water, soap or liquid detergents.

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

 IMPACT
 A C O U S T I C ®

 ARCHISONICe Cotton Mosaic
 10.06.25

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com (+41) 41 244 14 00 (+1) 646 918 1581 (+63) 285 80 02 50



10

EN 15102: 2007 + A1: 2011 0497

ARCHISONIC[®] Cotton Mosaic NCS Colour Codes

Developed by Colour Hive

Neutrals	Shadow 20	Shadow 30	Shadow 50	Designer White 00	
NCS Code	S 1500 N	S 4000 N	S 7500 N	S 0300-N	
Warm Neutrals	Flax 10	Flax 30	Flax 50		
NCS Code	S 0603-Y40R	S 3010-Y30R	S 5010-Y30R		
Yellows+Oranges	Almond 20	Almond 30	Almond 40	Wheat 30	Wheat 50
NCS Code	S 0907-Y50R	S 2010-Y50R	S 5020-Y50R	S 0515-Y20R	S 1030-Y20R
Reds+Pinks+Purples	Rose 20	Rose 50	Pigeon 20	Pigeon 30	
NCS Code	S 1020-Y90R	S 2020 Y90R	S 2010-Y90R	S 4010-Y90R	
Blues	Denim 10	Denim 30	Denim 40		
NCS Code	S 0505-B	S 3010-B	S 4020-B		
Greens	Sage 10	Sage 30	Sage 50	Aloe 30	Aloe 50
NCS Code	S 1505-G50Y	S 2005-G50Y	S 6005-G50Y	S 1010 G30Y	S 4020-G30Y

These NCS codes are the closest visual match available and may not be exact to natural pigments.

Circularity

ARCHISONIC® Cotton addresses the issue of sound absorption while being fully circular. Circularity refers to the idea of designing products and processes that are inherently restorative and regenerative. This means that they aim to eliminate waste and pollution while creating a closed-loop system in which resources are used efficiently and sustainably.

ARCHISONIC® Cotton embodies this concept by using only natural and renewable materials in its production process. The main component of the material is cellulose derived from cotton linters, a by-product of the cotton industry that would otherwise be discarded. The production process is also designed to be circular, recycling, and reusing water and minimising waste.

Handcrafted in Italy.

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

(Switzerland) (USA) (Philippines) connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC[®] Cotton Mosaic Light Reflection Values

Light Reflectance Values (LRVs) measure the percentage of visible and usable light reflected from a surface when illuminated by a light source. These values are crucial in the architecture and design industry, as they help professionals select materials that achieve the desired brightness and energy efficiency within spaces. To provide accurate and reliable LRVs for our Archisonic Cotton tiles, we collaborated with Lucerne's University of Applied Sciences and Arts, where their experts conducted comprehensive analyses on our samples. These detailed measurements ensure that our products meet industry standards and help designers make informed decisions about lighting and material use.

Neutrals	Shadow 20	Shadow 30	Shadow 50	Designer White	
Reflectance p	52%	21%	7%	87%	
Warm Neutrals	Flax 10	Flax 30	Flax 50		
Reflectance ρ	70%	39%	46%		
Yellows + Oranges	Almond 20	Almond 30	Almond 40	Wheat 30	Wheat 50
Reflectance ρ	47%	29%	15%	69%	46%
Reds + Pinks + Purples	Rose 20	Rose 50	Pigeon 20	Pigeon 30	
Reflectance ρ	50%	37%	51%	34%	
Blues	Denim 10	Denim 30	Denim 40		
Reflectance ρ	62%	27%	13%		
Greens	Sage 10	Sage 30	Sage 50	Aloe 30	Aloe 50
Reflectance p	61%	40%	12%	47%	23%

HSLU Hochschule



ARCHISONIC® Cotton Mosaic Acoustic Performance

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 Result	αw	SAA	NRC
Archisonic Cotton 24mm	0.60 (H)	0.56	0.55
Archisonic Cotton 24mm with 50mm insulation	0.70 (H)	0.66	0.65

The NRC rating is calculated as the average of the absorption coefficients measured at frequencies of 250Hz, 500Hz, 1000Hz and 2000Hz and round to the nearest 0.05. SAA rating is calculated as the average of the sound absorption coefficients of a material for the twelve one-third octave bands from 200Hz through 2500Hz and rounded off to the nearest 0.01.

Acoustic Performance

Frequency (Hz)		125	250	500	1000	2000	4000
Archisonic Cotton 24mm	α,	0.15	0.45	0.55	0.55	0.65	0.75
Archisonic Cotton 24mm with 50mm insulation	α	0.55	0.50	0.65	0.70	0.75	0.85



Archisonic Cotton 24mm

Archisonic Cotton 24mm with 50mm insulation

The table represents the practical sound absorption coefficient (α_p) in accordance with ISO 11654. The graph represents the sound absorption coefficients (as) in the third octave band center frequencies in accordance with ISO 354. Measurement used Pink Noise as excitation signal in a reverberant room.

3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889

 IMPACT
 A C O U S T I C ®

 ARCHISONICe Cotton Mosaic
 10.06

 C ®
 (Switzerland)

 10.06.25
 (DSA)

 (Philippines)

connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com



ARCHISONIC® Cotton Mosaic Additional Information

Online Resources

A variety of resources are available online for all of our products. Please visit the product's page for more information.











CAD files

Spec sheets and Installation Guide

Color families

Instruction videos

Associated products specs.

Ordering Process

Our experienced team of Project Consultants will guide and support you throughout the order process. We fulfill the majority of our orders in as little as 21 days¹ from your first point of contact, allowing you to focus on what truly matters to you.



consultant

Order Confirmation

- Dispatch
- Delivery

Contact Us

Ready to make an impact? We are just an email or call away to discuss your project and answer any question.



1 - Quote and Production times may vary 3 - patent pending: EU:23211902.4, IT:102022000024846, USA:18/522,889 IMPACT ACOUSTIC® (Switzerland) (USA) ARCHISONIC_® Cotton Mosaic 10.06.25 (Philippines)

connect@impactacoustic.com usa@impactacoustic.com philippines@impactacoustic.com





connect@impactacoustic.com | www.impactacoustic.com