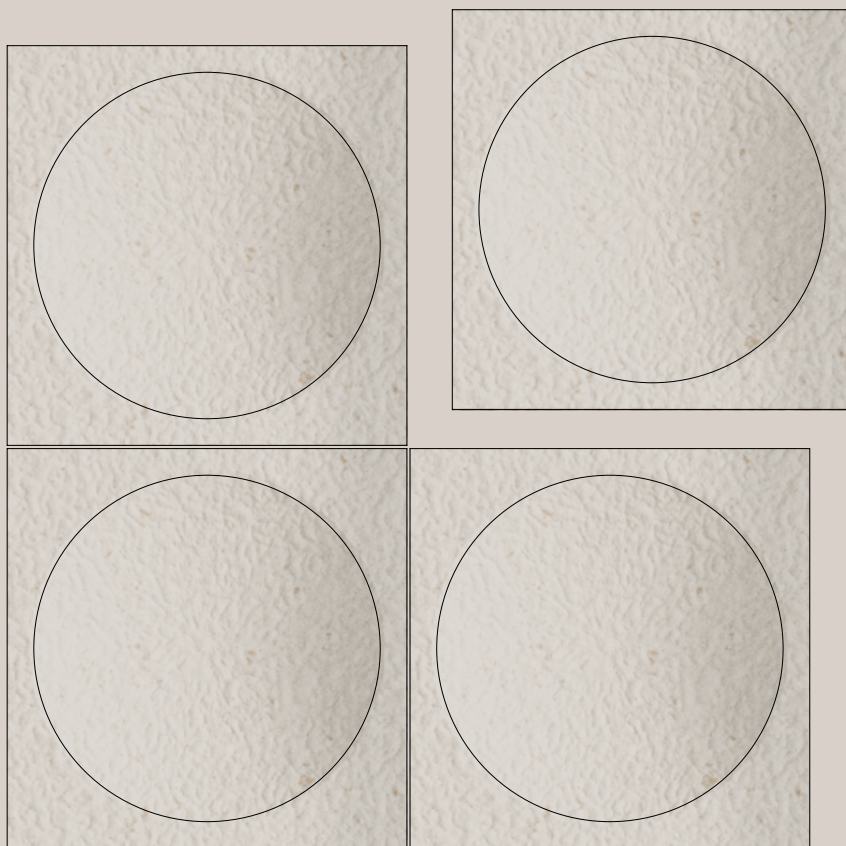


IMPACT ACOUSTIC®



**ARCHISONIC® Mycelium**  
Wall Tiles

421.00.10.253.00

TECHNICAL DATA SHEET

# Mycelium Wall Tile<sup>1</sup>

## General Information



## Data

### Applicable Article Numbers

421.00.10.253.00

### Total Dimensions<sup>2</sup>

Height	300mm	11.8"
Length	300mm	11.8"
Material Thickness	50mm	2"

### Material

Mycelium Composite      100% organic waste and fungal roots (mycelium) - CO<sub>2</sub> Negative

### Weight<sup>3</sup>

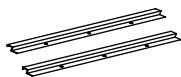
Single Tile                      0.45 kg/tile                      1 lb/tile

## Included

Mycelium Wall Tiles  
(4 pieces)



Z-Clips  
(optional)



Installation Jig  
(for Z-Clips)



Mounting  
plugs (for Z-clips)



Installation  
guide



Warranty  
10 years<sup>4</sup>



1 - Fire Certification in Progress

2 - all dimensions are nominal

3 - all weights are nominal

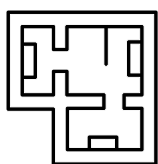
4 - Impact Acoustic warranty terms apply

# Mycelium Wall Tile

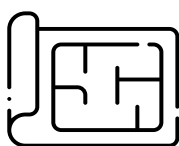
## Specification Guide

### 1 Prepare this information:

---



Project Area



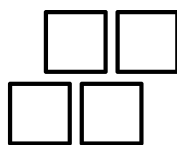
Plans



Other Considerations

### 2 Specify your Mycelium Wall Tile:

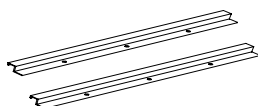
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Quantity  
multiples of 4 tiles  
(0.36 m<sup>2</sup> / 3.87 ft<sup>2</sup>)\*

### 3 Specify your mounting add-on:

---



Mounting  
Z-Clip profiles

Article Numbers:

**938.12.10.000.00:** Z-Clip Set for the tiles (28x 260mm Z-Clips, incl. Screws)

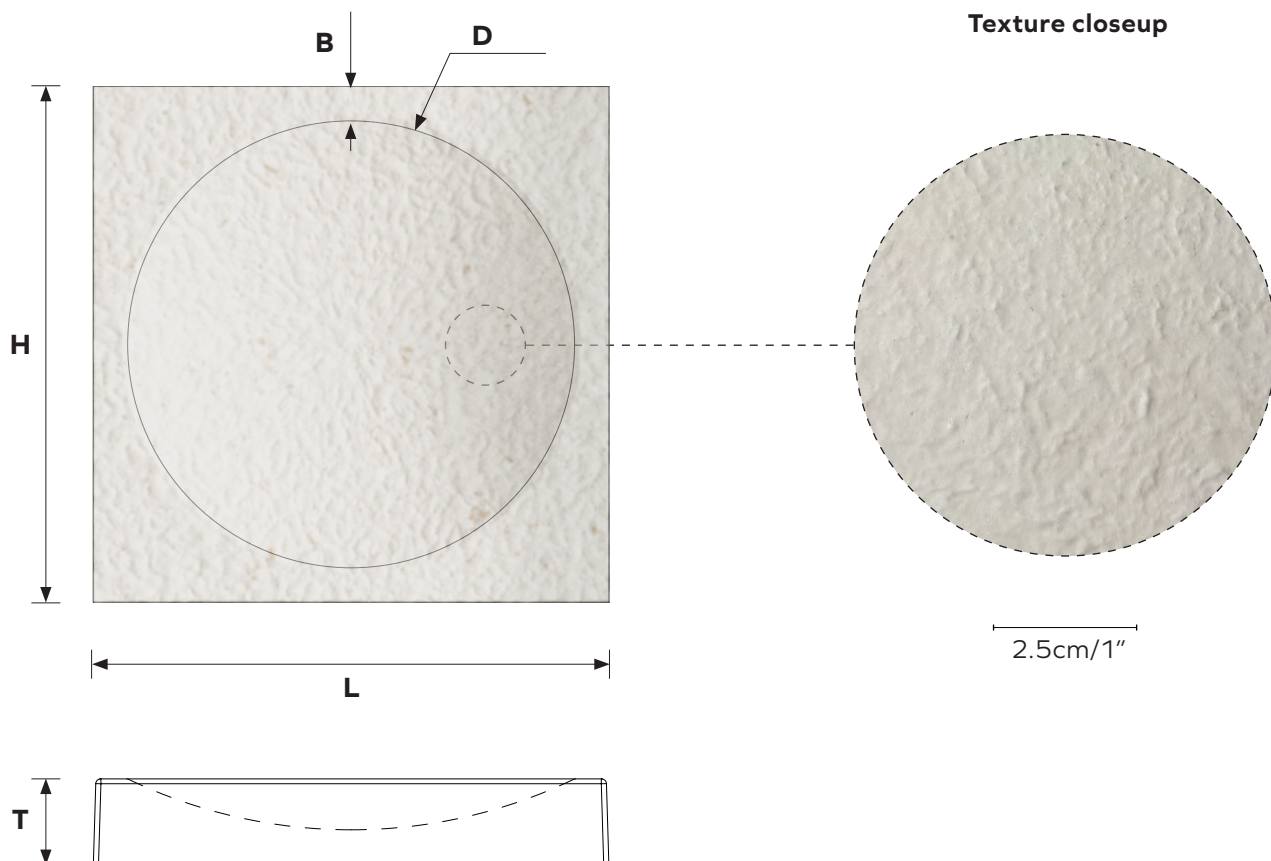
**938.12.20.000.00:** Z-Clip Set for the wall (7x 1200mm Z-Clips, excl. Screws)

**NOTE:** The amount of Z-clips for the wall may vary depending on the installation:

- For tiles in vertical position, you will need one of each set of z-clips per box.
- For tiles in horizontal position, you need 1x set of Z-clips for the tiles and 2x sets of Z-clips for the wall.
- For tiles in horizontal AND vertical position, you will need 1x set of Z-clips of tiles and 2x sets of Z-clips for the wall.
- It is always recommended to check over all quantities of Z-clips for the walls with our Consultancy Team.

# Mycelium Wall Tile

## Geometry Information



Dimensions table<sup>1</sup>

<b>L</b>	Length	300 mm	11.8"
<b>H</b>	Height	300 mm	11.8"
<b>T</b>	Thickness	50 mm	2"
<b>B</b>	Border	20 mm	0.2"
<b>D</b>	Diameter	260 mm	10.25"

1 - All dimensions are nominal

# Mycelium Wall Tile

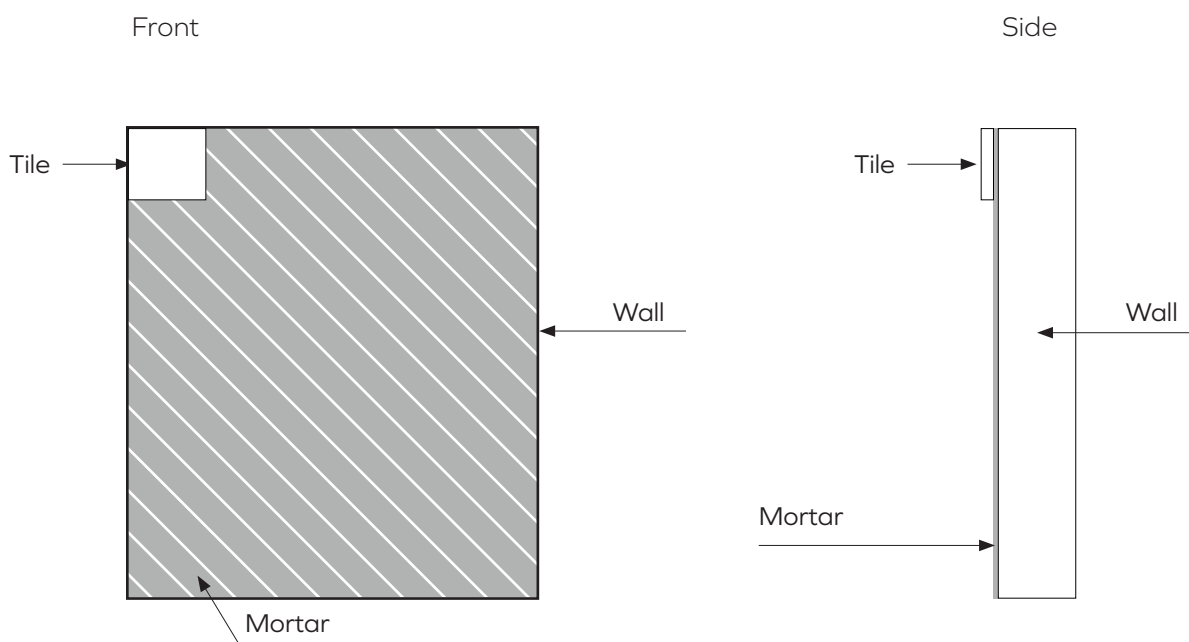
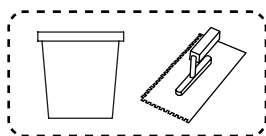
## Recommended Installation Method

For wall installation we recommend using mineral mortar with no or very low content of chemical additives like **Bioflex from Kerakoll**. It is important that that mortar is thixotropic and exhibit low vertical slip properties and long open time, like **Bioflex from Kerakoll** (<https://products.kerakoll.com/en/p/bioflex>).

Familiarize yourself with the application instructions for the tile mortar and prepare it accordingly. A notched trowel with 6 x 6 x 6 mm teeth is recommended for working with the tiles (e.g. LUX Classic 6 x 6 mm trowel).

All substrates must be level, hardened and undamaged, resistant, dry and free from binding agents and rising damp. Cementitious substrates can be moistened before application or coated with primer.

Please see full [Installation Guide](#) for more information.



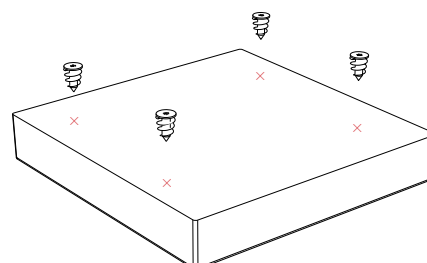
# Mycelium Wall Tile

## Alternative Installation Method

Z-Clip and the screws are not included in the basic scope of delivery.  
Installation hardware needs to be ordered separately.

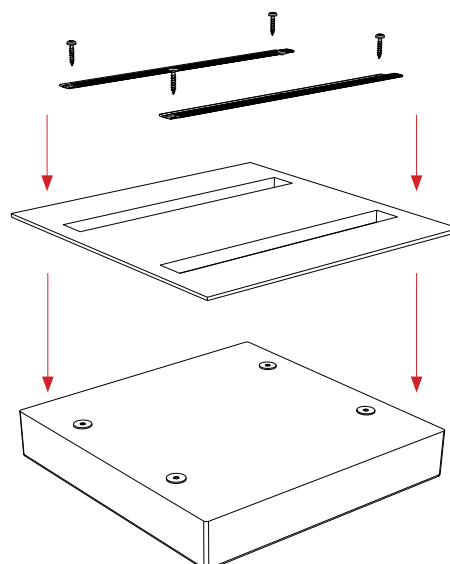
### 1 Screw the mount plugs.

Using the provided jig, identify the correct location and screw in the mount plugs into the back of the tile.



### 2 Screw the Z-clips to the tiles.

Screw the Z-clips to the tiles using the cardboard jig supplied. For a horizontal position of the tile, fix 2x Z-clips in parallel.



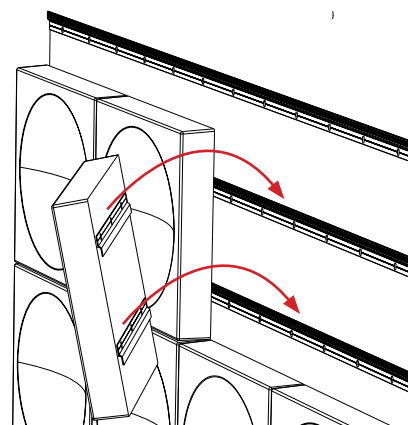
### 3 Screw Z-clips to the wall

When screwing the Z-clips to the wall, it is recommended to use every third hole in the profile. Please note a distance of 46mm (1.8in) from the bottom z-clip to the start of the covered area is recommended.

If the tiles are to be installed all horizontally or in both vertical and horizontal positions, a greater number of Z-clip sets will be required for the wall. It is always recommended to check over all quantities of Z-clips for the walls with our Consultancy.

### 4 Hanging the tiles

Hook the tiles into place.



# Mycelium Wall Tile

## 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

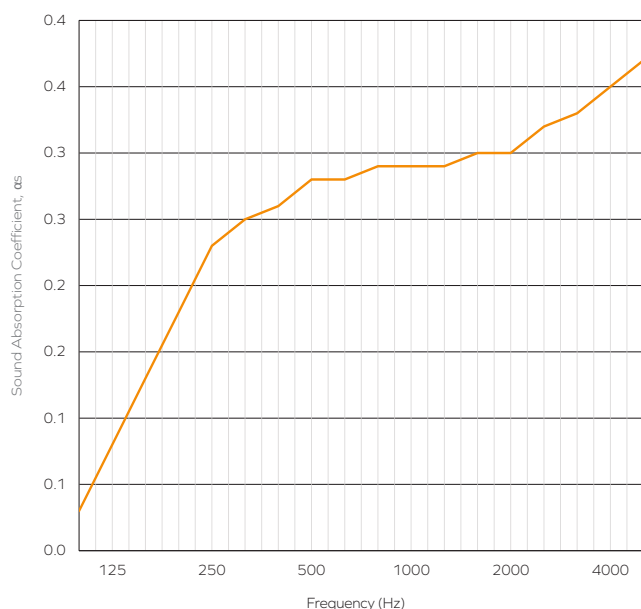
### Acoustic Test Result

	<b>aw</b>	<b>SAA</b>	<b>NRC</b>
Mycelium	0.30	0.28	0.30

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)		<b>125</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2000</b>	<b>4000</b>
Mycelium	$\alpha_p$	0.10	0.25	0.30	0.30	0.30	0.35



● Mycelium

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

**#We  
Make An  
Impact**

[connect@impactacoustic.com](mailto:connect@impactacoustic.com) | [www.impactacoustic.com](http://www.impactacoustic.com)