

# ARCHISONIC®

Acoustic lamella



IMPACT ACOUSTIC®

**BARCOL-AIR**   
by Swegon

**zent-frenger**   
by Swegon



## Convincingly combined

The radiant metal ceiling system A11 + Archisonic® impresses both visually and functionally. It meets the requirements of a modern climate ceiling in terms of energy efficiency and performance. The combination of the climate ceiling system with the ceiling baffles Archisonic by Impact Acoustic® also forms a highly effective sound absorber across the entire frequency spectrum. While the felt baffles, made from recycled PET bottles, absorb sound primarily in the high-frequency range, the strength of the radiant metal ceiling system A11 from Barcol-Air lies in the low-frequency range.

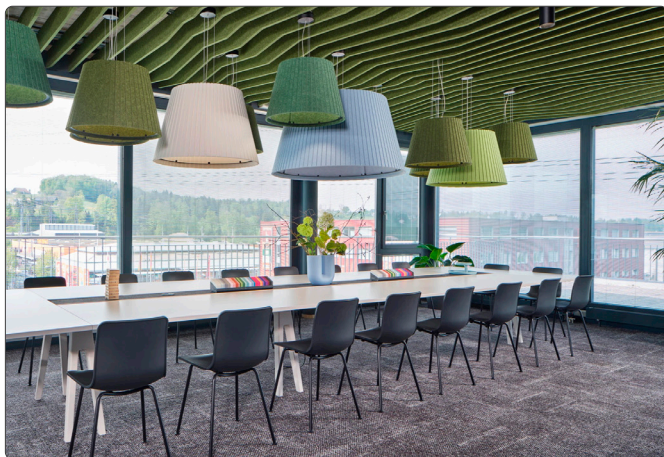
The combination solution can be implemented as a closed ceiling system or as a sail. The baffles are available in wave, straight and edge shapes. They are installed on site on the underside of the metal ceiling using a simple hanging procedure.

- Climate ceiling system with high thermal comfort
- Very good acoustic effectiveness in the high and low frequency range
- Ceiling baffles Archisonic® in the formes Wave, Straight and Edge



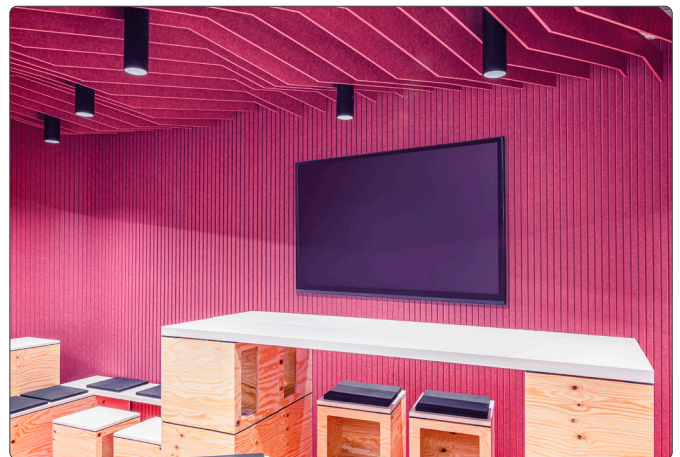
Archisonic Straight by Impact Acoustic®

Picture: © Eduardo Perez (and cover picture with Archisonic Wave)



Archisonic Edge by Impact Acoustic®

Picture: © Eduardo Perez



Archisonic Edge by Impact Acoustic®

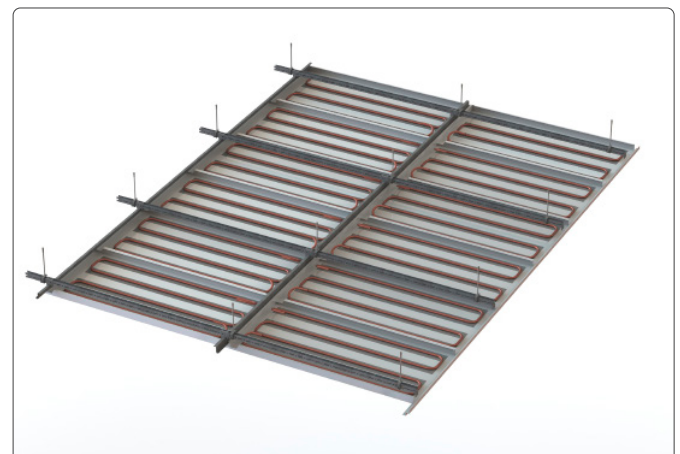
Picture: © Severin Ettlin / Project Toradex AG, Horw, CH

## Activation

Water system

- Copper tube meander on heat conducting rails
- Copper tube: Ø outside 12 mm

## Functions



# Capacity

## Initial data

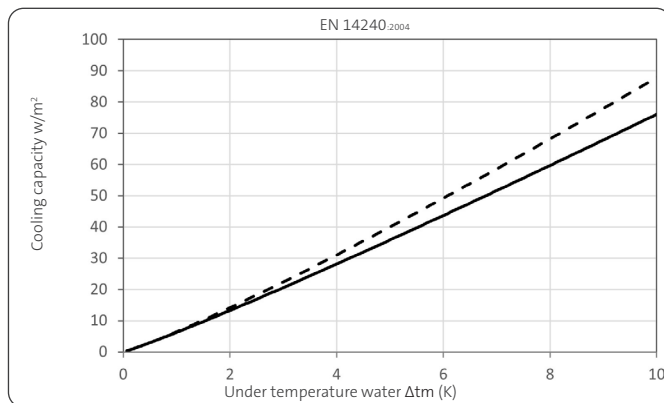
Material ceiling panle	Steel
Perforation ceiling panel	Rg 1,5 – 11 %
Distance heat conducting rails	150 mm
Activation method	on fleece

Capacity information without project-specific performance-influencing factors.  
(Aquila: Barcol-Air's supply air diffuser)

## Ceiling system closed



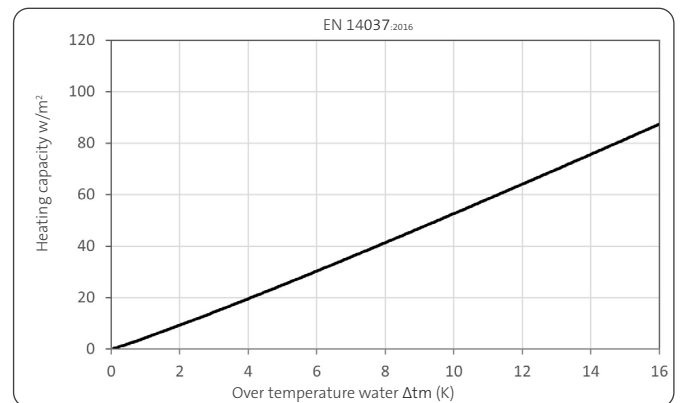
### Cooling (8 K)



- Radiant metal ceiling A11 + Archisonic®: up to 60  $w/m^2$  (without supply air operation)
- - Radiant metal ceiling A11 + Aquilo + Archisonic®: up to 70  $w/m^2$



### Heating (15 K)

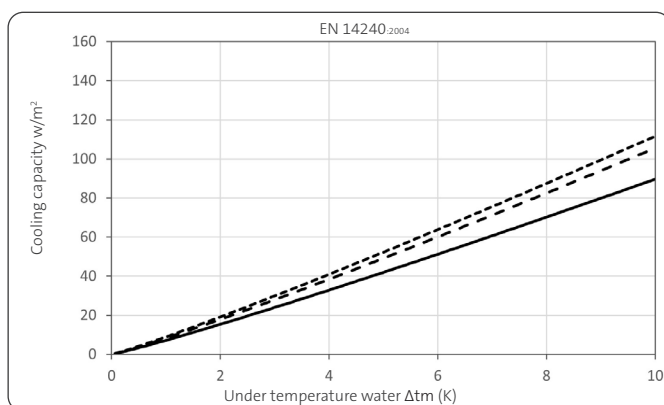


- Radiant metal ceiling A11 + Archisonic®: up to 80  $w/m^2$
- Radiant metal ceiling A11 + Aquilo + Archisonic®: up to 80  $w/m^2$

## Ceiling system sail



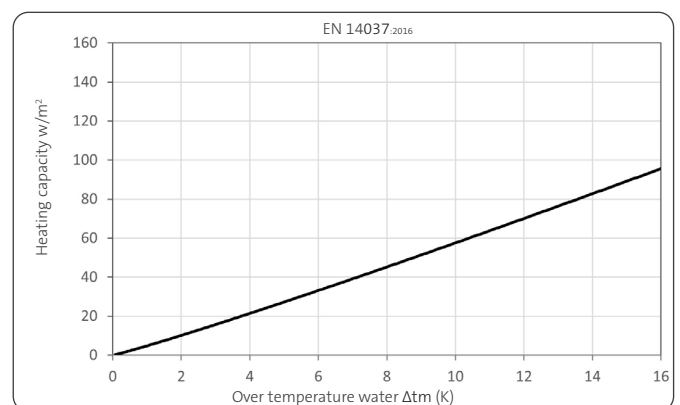
### Cooling (8 K)



- Radiant metal ceiling sail A11 + Archisonic®: up to 70  $w/m^2$  (without supply air operation)
- - Radiant metal ceiling sail A11 + Aquilo + Archisonic®: up to 85  $w/m^2$
- .... Radiant metal ceiling sail A11 + Nozzle channel + Archisonic®: up to 90  $w/m^2$



### Heating (15 K)



- Radiant metal ceiling sail A11 + Archisonic®: up to 90  $w/m^2$
- Radiant metal ceiling sail A11 + Aquilo + Archisonic®: up to 90  $w/m^2$
- Radiant metal ceiling sail A11 + Nozzel channel + Archisonic®: up to 90  $w/m^2$

#### Notice

- SN EN 14240: The cooling capacity is related to the active area according to SN EN 14240:2004. The active area is calculated according to SN EN 14240 from the number of heat-conducting rails x length of heat-conducting rail x distance between heat-conducting rails.
- SN EN 14037: The heating capacity is related to the active area according to SN EN 14037:2016. The active area is calculated according to SN EN 14037 from the length of the ceiling panel x the width of the ceiling panel.

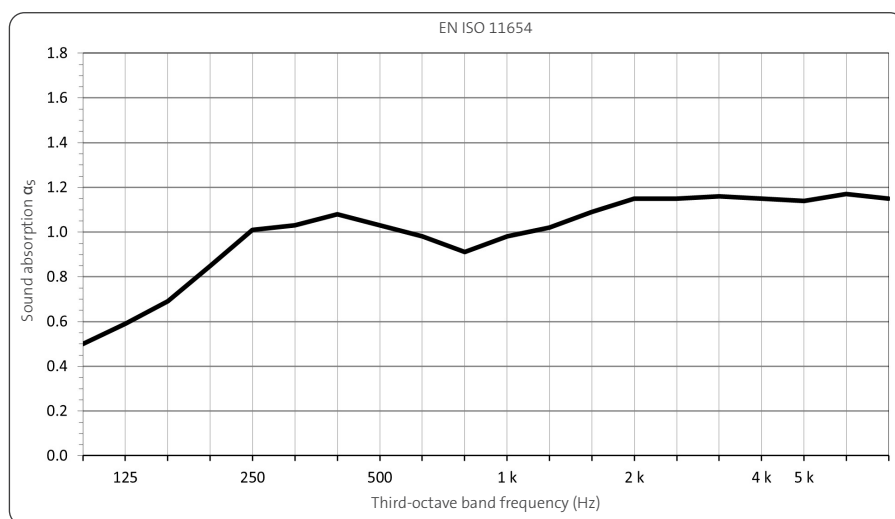


## Initial data

Material ceiling panel	Steel
Perforation ceiling panel	Rg 1,5 – 11 %
Distance heat conducting rails	150 mm
Activation method	on fleece
Height ceiling baffles	150 mm
Distance ceiling baffles	150 mm

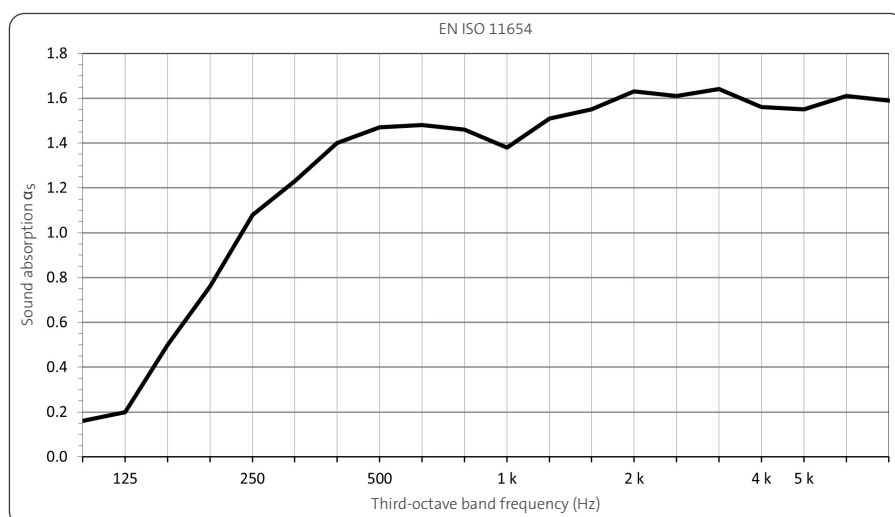
## Ceiling system closed

Sound absorption $\alpha_p$	250: 0,95 500: 1,00 1k: 1,00 2k: 1,00 4k: 1,00
Sound absorption $\alpha_w$	$\alpha_w$ : 1,00
Sound absorption class	A



## Ceiling system sail

Sound absorption $\alpha_p$	250: 1,00 500: 1,00 1k: 1,00 2k: 1,00 4k: 1,00
Sound absorption $\alpha_w$	$\alpha_w$ : 1,00
Sound absorption class	A



## System / Operation

### Construction

- Ceiling system
  - Square and rectangular panels
  - Special solutions
  - Installation height: min. 75 mm
- Installation systems
  - Lay-in system
  - Hook-on system
  - Clip-in system
  - C-channel systems
  - Sail: threaded rods or ropes
  - Ceiling Baffles: On-site installation with a simple hooking procedure to the underside of the metal ceiling

### Water

Recommended:

- Temperature
  - Cooling 16 – 18 °C
  - Heating 28 – 37 °C
- Temperature distance  $\Delta t$  (in-out): 2 – 3 K
- Pressure drop: 20 – 25 kPa
- Water flow: 80 – 150 l/h
- Max. operating pressure: up to 9 bar
- Water quality: SWKI BT 102-01, BTGA 3.003, VDI 2035

### Surrounding

- Ambient temperatures: +5 – 50 °C
- Humidity: up to 90 % relative humidity

## Technical specifications

### Dimensions

Ceiling panels metal	Ceiling baffles Archisonic®
Length: 400 – 1800 mm Width: 200 – 1200 mm Height: 30 – 120 mm Special dimensions on request	Length: 400 – 1800 mm height: 150 mm Thickness: 24 mm (28 PET bottles/m²)

### Material and weight

Ceiling panels metal	Ceiling baffles Archisonic®
Material: Steel 0,70 mm Weight: 6,26 – 8,58 kg/m² (incl. activation and water)	Material: 100 % PET (min. 60 % recycled) Weight: 4 kg/m² (+/- 10 %)

### Versions

Ceiling panels metal	Ceiling baffles Archisonic®
Colors: Standard RAL 7016 anthracite (powder coating; other colors RAL/NCS on request)	Colors: 28 (according to the overview on the following page)
Perforations: Standard (other perforations on request)	Forms:

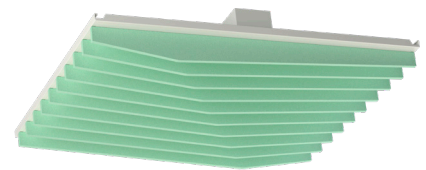
## Fire protection

- Radiant metal ceiling system A11
  - Building material class A2-s1, d0, EN 13501-1
- Ceiling baffles Archisonic®
  - Building material class B-s1, d0, EN 13501-1

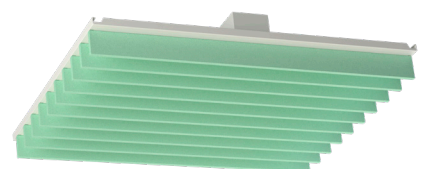
## Certifications

- Radiant metal ceiling system A11
  - ISO 9001
- Ceiling baffles Archisonic®
  - Cradle to Cradle Certified™
  - Emissions in LEED EQ credit (Low-emitting products)
  - Product qualifies for LEED v4 specifications on VOC

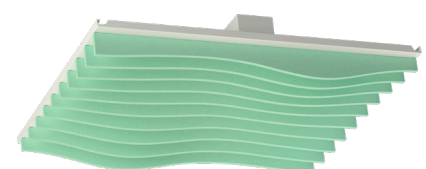
Edge



Straight



Wave

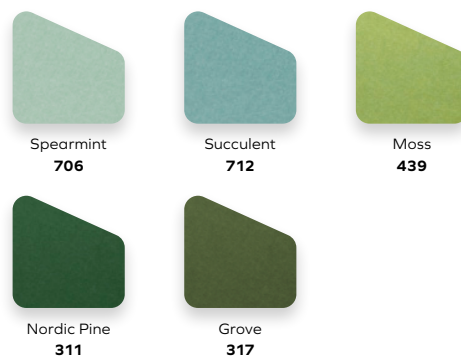


## Colors ceiling baffles Archisonic®

### Quiet Neutrals



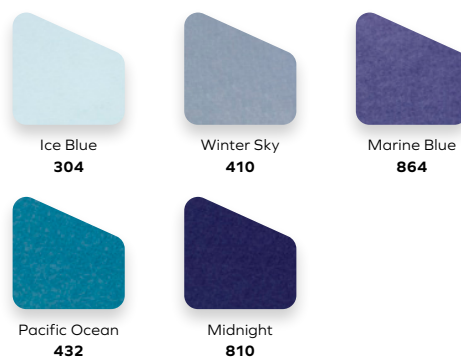
### Living Greens



### Warm Naturals



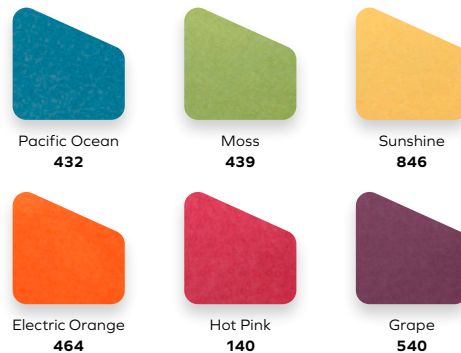
### Elemental Blues



### Soothing Pastels



### Energetic Brights



### Elegant Darks



### Primary Play





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