CHILLED ACOUSTIC PLASTER CEILING

Effective in secret

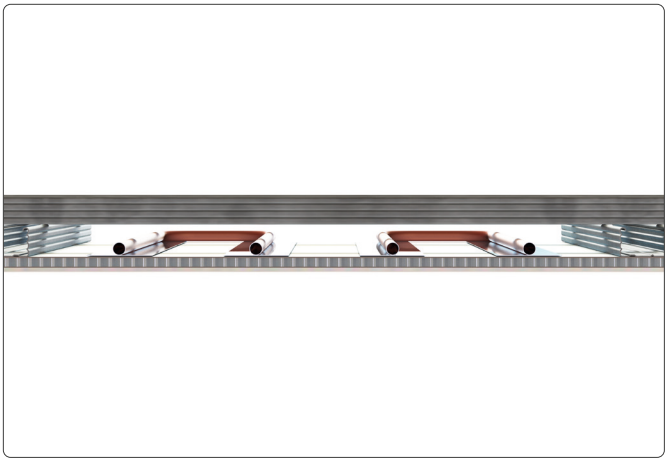
Tailor-made solutions for indoor climate

BARCOL-AIR

EFFECTIVE IN SECRET

The Chilled acoustic plaster ceiling A81 is suitable for rooms where thermal, acoustic ad certain visual requirements are to be met. The cooling system consists of aluminium sandwich panels with honeycomb core and cooling registers. It can be integrated easily in the standard substructures. The special acoustic plaster is applied after commissioning. The low installation height of this system also makes it ideal for rooms with low ceilings.

- Cooling and heating effect with high degree of radiation
- Good acoustic efficiency
- Low installation height: min. 150 mm



Activated aluminum sandwich panel of the chilled acoustic plaster ceiling

CEILING APPEARANCE
closed

OPERATING PRINCIPLE
Radiation

AIR SUPPLY
visible

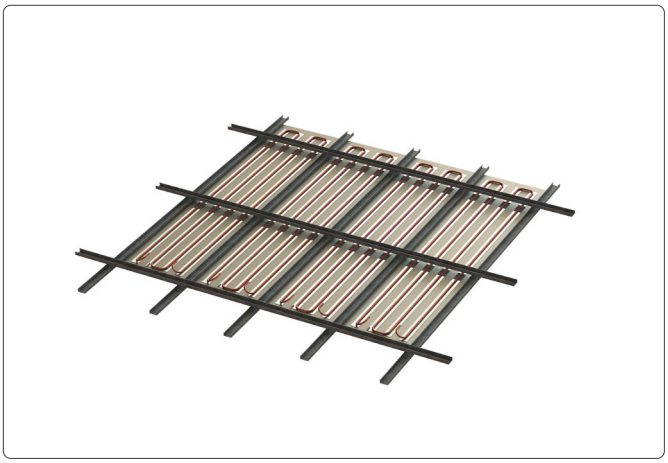
CAPACITY
Cooling: 79 W/m² (8 K), EN 14240
Heating: 109 W/m² (15 K), EN 14037 : 2003

ACOUSTICS
α_w: up to 0,65
Schallabsorptionsklasse C, EN ISO 11654

ROOM COMFORT
Thermal comfort according to EN ISO 7730, SIA 382/1

AKTIVIERUNG

- Copper tube meander on heat conduction rails
- Copper Tube: Ø outer 12 mm



FUNCTIONS

Cooling | Acoustics | Supply and exhaust air
Heating | Integral components | Compensation cold air drop

REFERENCES

Villa, Ascona
(and cover picture)

Banca Populare, Milano

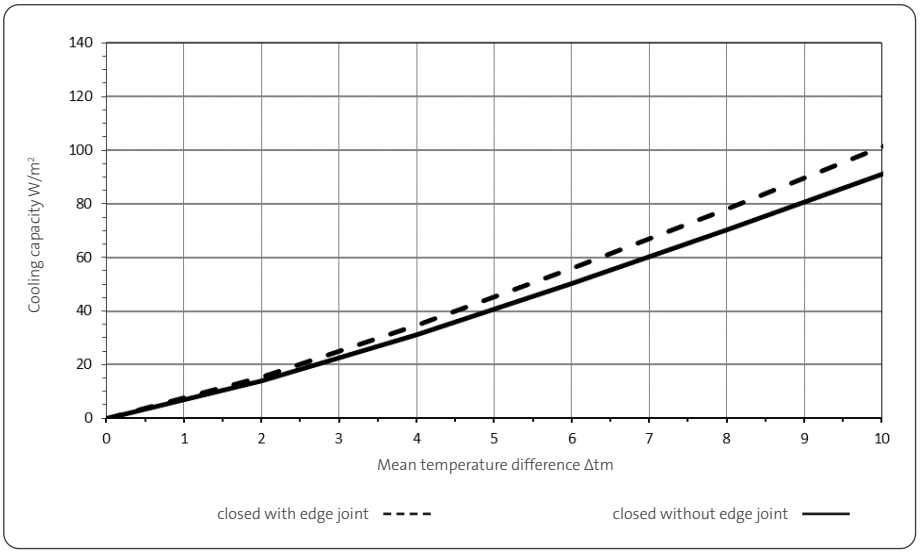
CAPACITY DATA

Initial data

Ceiling system	closed with edge joint - - - -	closed without edge joint ———
Material ceiling panel	Alu sandwich panel 6 mm	Alu sandwich panel 6 mm
Installation height	200 mm	200 mm
Distance heat conduction rails	**125 mm**	**160 mm**
Additional inlay (mineral wool)	**without**	**with**

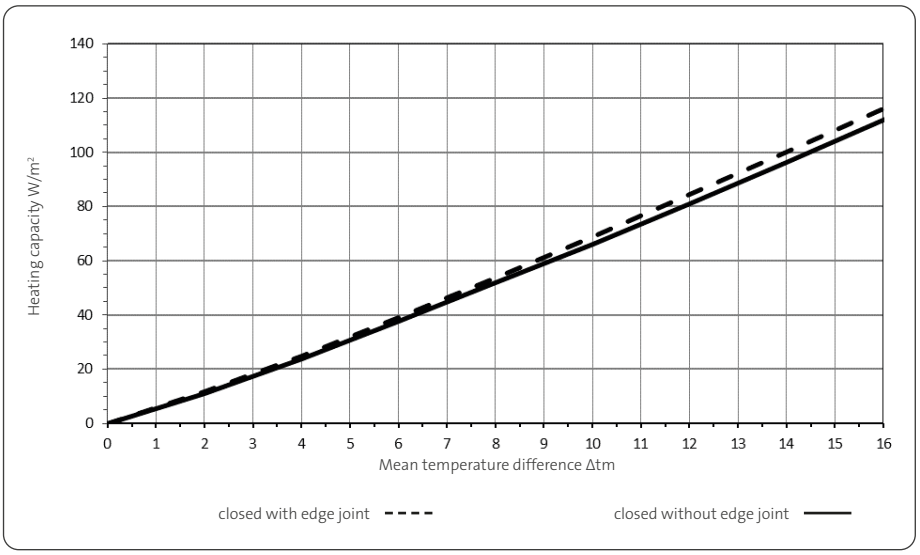
Cooling

- up to 79 W/m² (8 K)



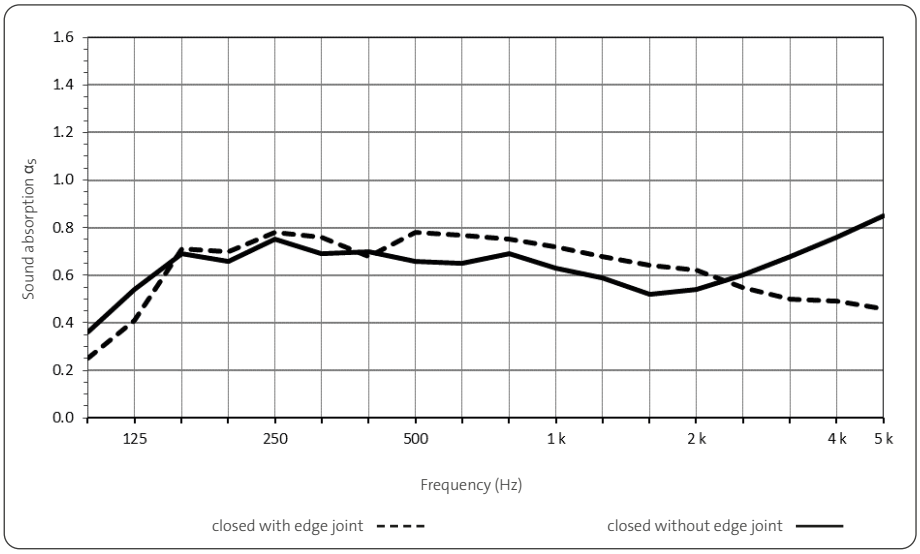
Heating

- up to 109 W/m² (15 K)



ACOUSTICS

Ceiling system	closed with edge joint – – – –	closed without edge joint ———
Installation height	250 mm	250 mm
Sound absorbtion inlay	Mineral wool	Mineral wool
Sound absorption α_p	250: 0,75 500: 0,75 1k: 0,70 2k: 0,60 4k: 0,50	250: 0,75 500: 0,65 1k: 0,65 2k: 0,55 4k: 0,75
Sound absorption α_w	α_w: 0,65 (L)	α_w: 0,65 (L)
Sound absorption class	C (EN ISO 11654)	C (EN ISO 11654)



SYSTEM / OPERATION

Construction
- Ceiling system
  - closed
  - false ceiling without joints
- Installation system
  - CD base profile
  - CD bearing profile

Wasser
Recommended:
- Temperature: cooling 16 – 18 °C, heating 28 – 37 °C
- Temperatur difference $\Delta t_{|in\text{-}out|}$: 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

FIRE PROTECTION

- Building material class A2-s1, d0 / B1-s1, d0

TECHNICAL SPECIFICATIONS

Dimensions
- Installation height: min. 150 mm
- Panel dimension: project specific

Material and weight
- Material
  - Aluminium sandwich panel with honeycomb core
  - Aluminium heat conducting rail
  - Copper tube meander
  - Acoustic plaster

- Weight
  - 9 – 12 kg/m^2 (incl. water and acoustic plaster)

Versions
- Acoustic plaster white
- Acoustic plaster coloured on request

CERTIFICATION

- ISO 9001

BARCOLAIR.COM

Competent, comprehensive, flexible, efficient

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