*clima***BOARD®** *pp*

smooth plasterboard cooling ceiling
with synthetic capillary tubes

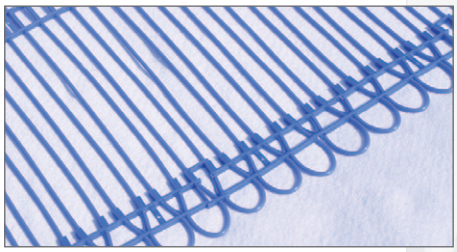


Photo credit: ICS, Stephan Pusch, Christian Günther

*clima***BOARD**® *pp*

The System

The product *clima***BOARD**® *pp* is a closed plasterboard ceiling with a seamless finish. Heat load removal takes place by means of approximately 70 % radiation and 30 % convection. The smooth surface can be finished with surface quality Q2. However, for a higher quality finish in spaces with low lighting or a where a painted finish is desired, we recommend surface qualities Q3 to Q4.

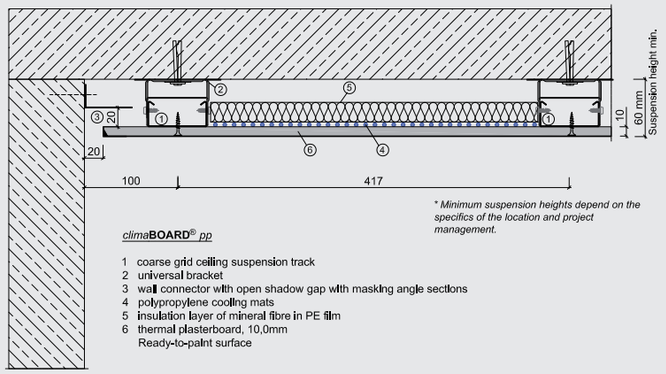
The cooling system is created by a series of mats made of capillary tubes running parallel to one another. All tubes are integrated into the storage battery and are connected to the flow line and return flow in an alternating pattern. Keeping the individual capillary tubes parallel and at the correct interval is accomplished through the use of spacer bars. Water is supplied by the internal network of tubes, which are welded into place. Special distance sleeves ensure the exact fitting of the flexible mats on the grid of the ceiling suspension tracks in order to allow for the use of large mats.
The capillary tube mats must be filled and pressure checked before closing the ceiling. The sound absorption layer is made of mineral fibres and serves a twofold purpose: it not only offers stronger sound absorption, but also improves the contacting to the plasterboard.

The substructure has a coarse grid with CD profiles (60/27) and from here the system can be suspended onto a raw concrete ceiling. Below that, at a 90° angle, the fine grid is mounted, resulting in a draft and pressure-proof substructure onto which active components and plasterboard plates can be secured.

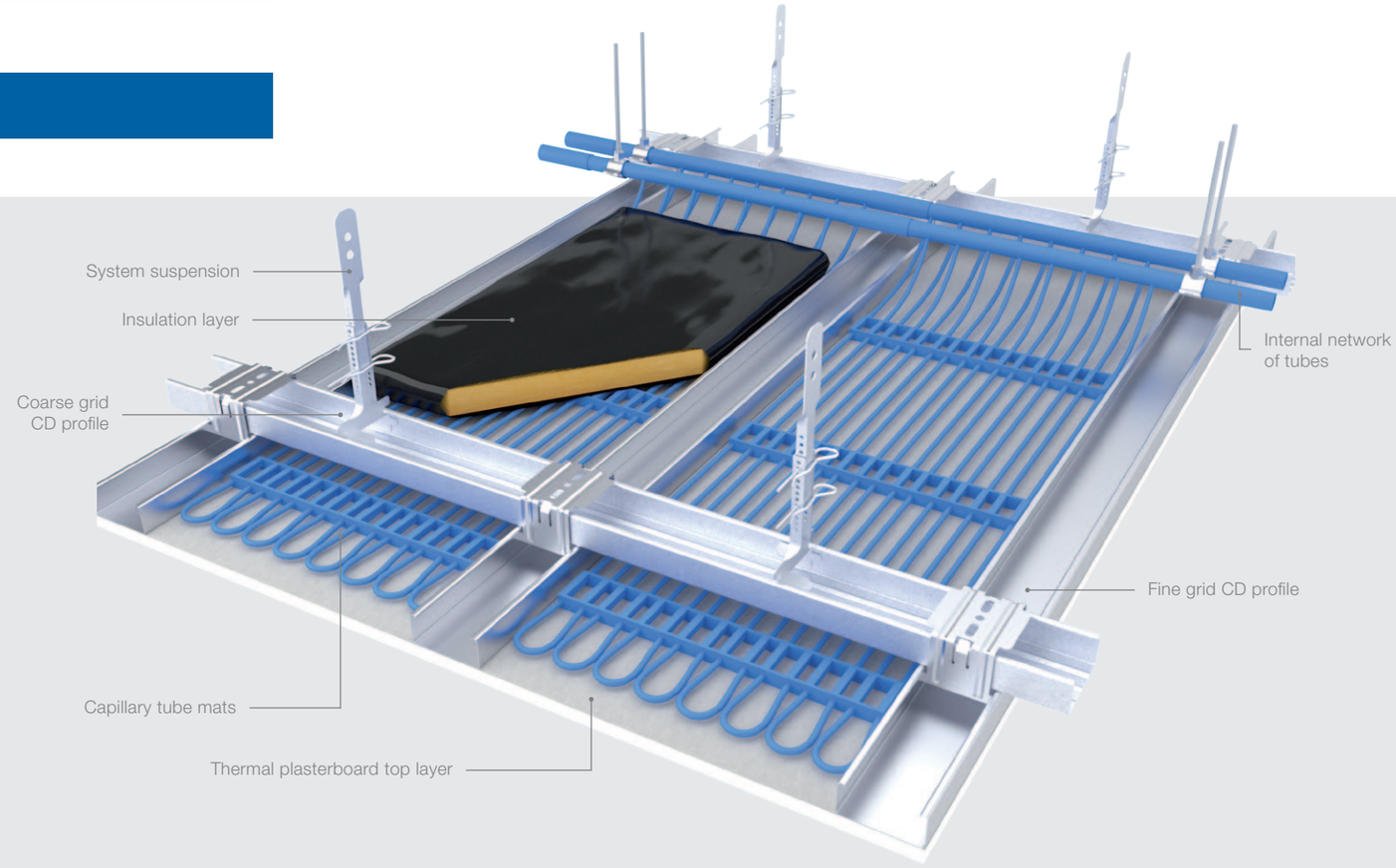
The surface layer consists of thermal plasterboard (10 mm thick) which is specially fastened to the metal substructure in intervals of a maximum of 170 mm. Joints and screws are filled for a seamless appearance.

To clean and maintain the cooling ceiling, dust that has accumulated can be carefully removed with a soft brush. Depending on how wipe resistant the finish is, dust and dirt can be washed off.

THE SYSTEM



THE STRUCTURE



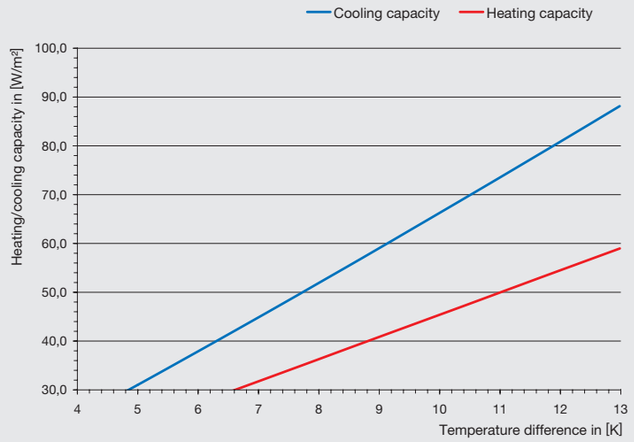
Cooling capacity

The given cooling and heating capacities have been test certified by accredited institutions in accordance with DIN EN 14240.

Acoustics

The system *clima***BOARD**® *pp* does not have any sound absorbing properties. Should you have acoustic requirements, systems such as *clima***BOARD**® *ppl* or *clima***BOARD**® *pp acoustic fine* are recommended.

PERFORMANCE



TECHNICAL DETAILS

General

Product:	*clima***BOARD**® *pp*
Model:	capillary tube mats
Cooling capacity as per DIN 4715*:	66.2 W/m²
Audit report:	KF2002_P1004
Insulation:	30 mm mineral fibre insulation in PE film
Substructure:	construction of CD profiles
Suspension:	minimum 100 mm
Weight:	about 15.8 kg/m²
Sound absorption:	0 %

Surface

Material:	thermal plasterboard (10 mm)
Perforation type:	closed
Free cross-section:	0 %

Surface Finish

Type:	uncoated
Surface:	smooth
Surface quality:	Q2, Q3–Q4 optional

Cooling System

Material:	PP Random Copolymer
Modul width:	416 mm
Modul length:	500–6 500 mm
Main tube:	20 × 2.0 mm
Capillary tube:	3.4 × 0.55 mm
Capillary tube interval:	10 mm
Test pressure:	10 bar

* Details regarding the cooling capacity are based on system temperatures with a flow line at 15° C, return flow at 17° C, and an operating room temperature of 26° C

Recommended Uses: We strongly recommend using *clima***BOARD**® *pp* where a smooth and seamless appearance is desired. *clima***BOARD**® *pp* is versatile and can be used in rooms with unusual shapes such as tight corners, curves, sloped ceilings or protrusions. This item is also ideal for spaces with individualized colour schemes.

As the cooling capacity may vary based on installation conditions, we advise receiving a quotation specific to your project. We will then recommend the most feasible solution. We also offer reference and test measuring services under DIN conditions in our own testing and development laboratory.

Service and maintenance of the cooling ceiling and its components should take place once a year according to the general maintenance guidelines. Renovation or repair of damage to the system may only be performed by trained specialists (see Technical Requirements and FAQ for further information).