COOLING SAILS



climaBOARD® Segel

Plasterboard cooling sail in various forms (with or without acoustic function)



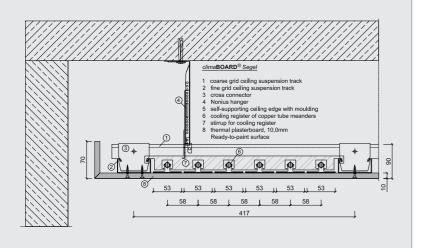
The climaBOARD® Segel is a seamless plasterboard system. The cooling sail hangs beneath the actual ceiling and can be placed in specific points. Cooling load removal takes place by means of approximately 40% radiation and 60% convection. The surface can be finished according to your individual requirements and tastes and is suitable for both Q2 and Q3 surface qualities.

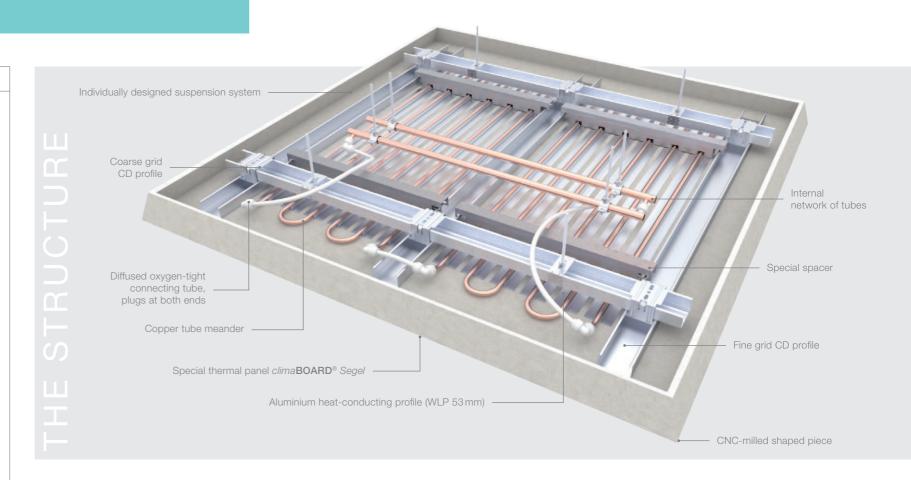
The cooling system is comprised of water-bearing copper tubing (10 x 0.6mm), made of a single meander-shaped piece. The length and width of the copper tube meander are made to fit the measurements of the covering board. The tube intervals and number of rows of tubes are selected depending on the cooling capacity and pressure loss requirements. Water for the meanders is supplied by diffused oxygen-tight connecting tubes in an internal network of tubes. Intelligent plug and solder connections at the ends of the calibrated tubes of each meander perfectly secures the connection to the entire system. The use of mounted special spacers maintain a secure connection between the cooling battery and plating. Aluminium heat-conducting profiles (WLP) ensure that temperatures are effectively maintained and distributed throughout the room.

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 special thermal panels (see also *climaBOARD-S*®) can be secured using CNC-milled shaped pieces.

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.



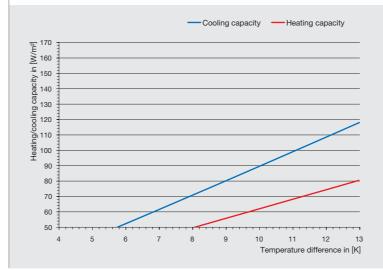


Cooling capacity

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

Acoustics

The climaBOARD® Segel system with an acoustic function is also available. We can tailor the acoustic performance of climaBOARD® Segel especially to meet your project's requirements.



PERFORMANCE

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General

Product:	climaBOARD® Segel
Model:	6 tube rows, 53mm heat-conducting profile, 58mm tube interval
Cooling capacity as per DIN EN 14240*:	87.7 W/m ²
Audit report:	interpolated value
Substructure:	special profile
Suspension:	minimum 100 mm
Weight:	about 20 kg/m ²
Sound absorption:	0%

Surface

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

Surface Finish

Type:	uncoated
Surface grain:	smooth
Surface quality:	Q2, optional Q3

Cooling System

Material:	copper meanders with aluminium heat-conducting profile
Modul width:	416 mm
Modul length:	500-4.100 mm
Tube diameter:	cu DN 8 (10×0.6 mm)
Connection:	PEX- tube with plug coupling
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 advise using climaBOARD® Segel anywhere where the ceiling is low, sporadic cool loads need to be removed, or also for improving the appearance of the ceiling. Lighting, shape, and colour can be selected according to your individual taste.

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).

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.