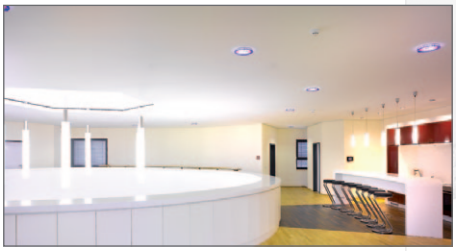
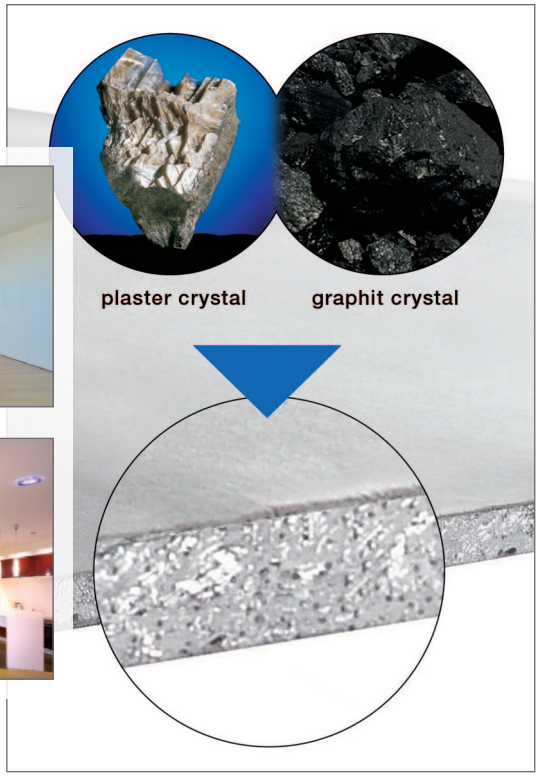
*clima*BOARD-S®

highly conductive special carrier plate
of plasterboard with embedded graphite granules

improves cooling capacity by 13–15%

for use with smooth plasterboards ceilings and sails
with or without acoustic plaster finish





*clima***BOARD-S®**

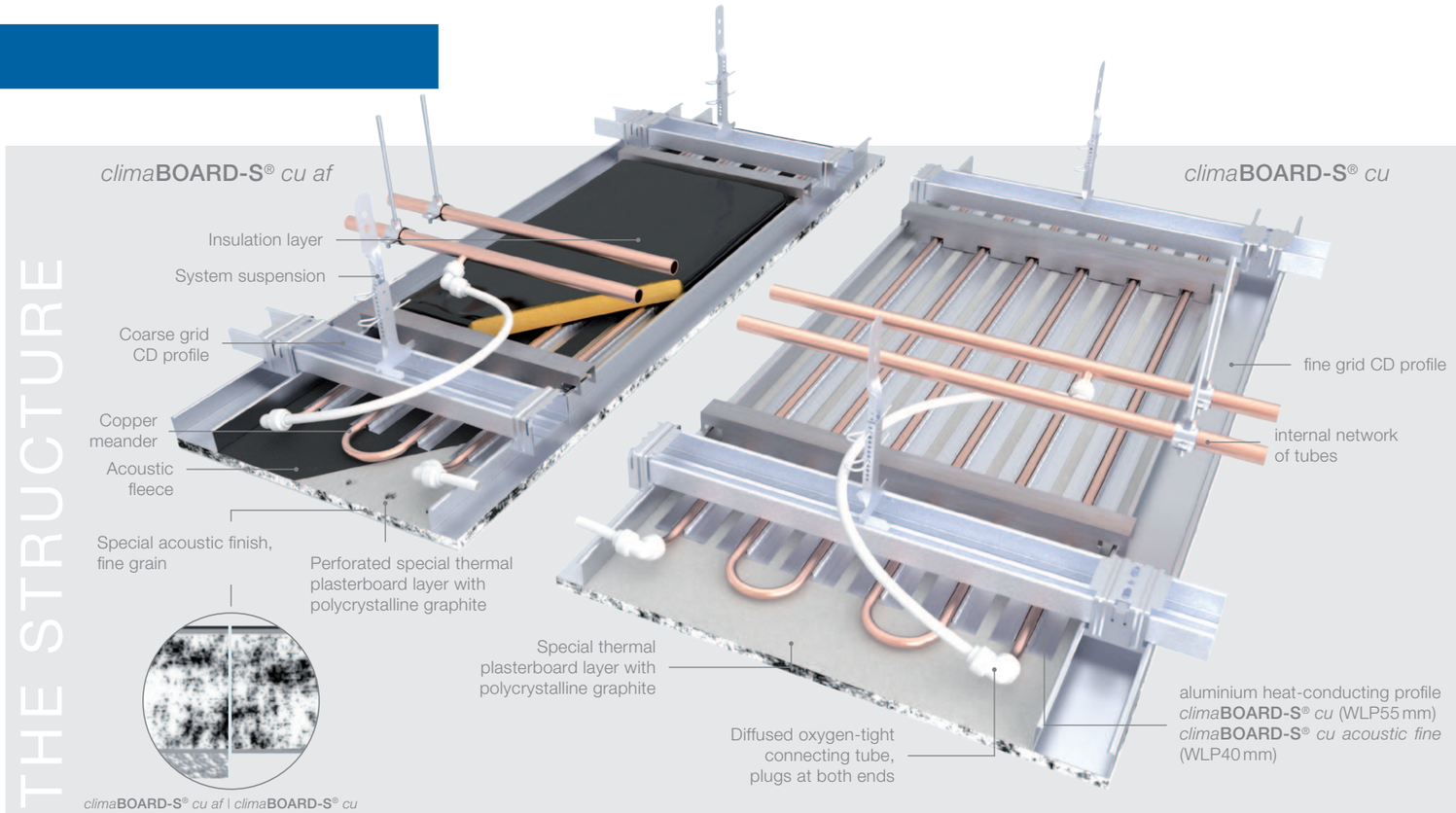
The System

The product *clima***BOARD-S®** is a high-performance ceiling with a highly conductive special plasterboard carrier plate with a closed, seamless finish. Heat load removal takes place by means of approximately 70 % radiation and 30 % convection. *clima***BOARD-S®** is available in two different versions: *clima***BOARD-S®** *cu* and *clima***BOARD-S®** *cu acoustic fine*. Both versions are based on the products *clima***BOARD®** *cu* and *clima***BOARD®** *cu acoustic fine.*

The surface layer consists of special thermal plasterboard (10mm thick) containing polycrystalline graphite, allowing for heightened heat conduction. The plasterboard is specially fastened to the metal substructure in intervals of a maximum of 170mm. Joints and screws are filled and sanded for a seamless appearance. Acoustic insulation is glued to the structure for sound absorption. For further information about the cooling system, the substructure, and cleaning and maintenance, please see the brochures *clima***BOARD®** *cu* and *clima***BOARD®** *cu acoustic fine*.

Recommended Uses: We recommend using *clima***BOARD-S®** *cu* in spaces that require high-performance cooling. *clima***BOARD-S®** *cu acoustic fine* should be used where there are sound absorption requirements in addition to the cooling requirements. As the assessment of both the cooling capacity and acoustics depends on a number of factors and is likely to vary, we advise receiving a quotation specific to your project. We collaborate with a building physicist to determine the most feasible solution for your project's acoustic requirements. In addition, we are able to perform an assessment of your individual acoustic needs in cooperation with our partner MÜLLER BBM in Planegg/ Munich. We also offer reference and test measuring services under DIN conditions in our own testing and development laboratory

THE STRUCTURE



*clima***BOARD-S®** *cu af* | *clima***BOARD-S®** *cu*

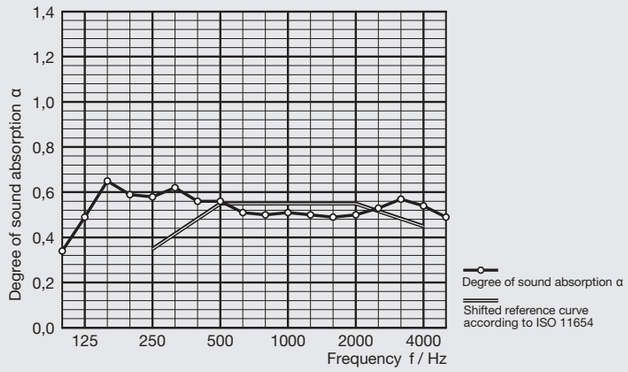
Acoustics

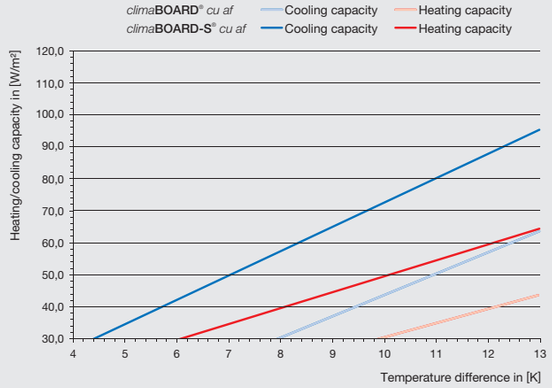
The given sound absorption values have been determined using active ceiling elements (including cooling batteries) and have been test certified by accredited institutions in accordance with DIN EN 11654.

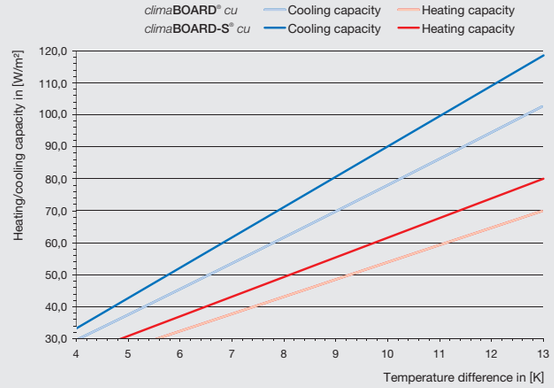
Cooling capacity

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

PERFORMANCE







TECHNICAL DETAILS

General

Product:	*clima***BOARD-S**® *cu af*	*clima***BOARD-S**® *cu*
Model:	4 tube rows, 40 mm heat-conducting profile, 60 mm tube interval,	6 tube rows, 53 mm heat-conducting profile, 58 mm tube interval
Cooling capacity as per DIN EN 14240*:	71.9 W/m²	89.8 W/m²
Audit report:	Interpolated value	KF2056
Insulation in PE film:	Optional, 30mm mineral fibre insulation	Optional, 30 mm mineral fibre insulation
Substructure:	construction of CD profiles	construction of CD profiles
Suspension:	minimum 100 mm	minimum 100 mm
Weight:	ca. 20.5 kg/m²	ca. 22 kg/m²
Sound absorption:	55 %	0 %

Surface

Material:	*clima***BOARD-S**®-plate (10 mm)	*clima***BOARD-S**®-plate (10 mm)
Perforation type:	15/30 R	closed
Free cross-section:	30 %	0 %

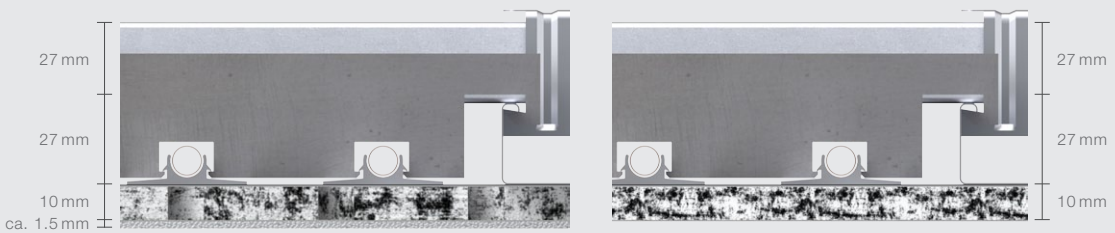
Surface Finish

Type:	Acoustic fine acoustic plaster	uncoated
Surface:	Fine, very fine (grain 0.5–0.7 mm)	Smooth
Surface thickness/ quality:	1–1.5 mm, Q2	Q2, Q3–Q4 optional

Cooling System

Material:	Copper meanders with aluminium heat-conducting profile	Copper meanders with aluminium heat-conducting profile
Modul width:	333 mm	416 mm
Modul length:	500–4 100 mm	500–4 100 mm
Tube diameter:	cu DN 8 (10 × 0.6 mm)	cu DN 8 (10 × 0.6 mm)
Connection:	PEX tube with plug coupling	PEX tube with plug coupling
Test pressure:	10 bar	10 bar

THE SYSTEM



* 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