



OWActive mineral climate ceilings Raum-K Grid

OWA

A healthy indoor climate with a radiant atmosphere
inspired by nature

- comfortably warm in winter
- pleasantly cool in summer
- energy efficiency available at any time

www.owa.de

OWActive mineral climate ceilings Raum-K Grid

The direct path to a sustainably better climate

The OWActive mineral climate control ceiling is a sustainable, cutting-edge ceiling system, suitable for every sector of the construction industry and room type. Efficient room climate control and optimised building acoustics are brought together for the first time by using OWA's high-quality mineral wool.

OWActive mineral climate control ceilings make a significant contribution to reducing energy consumption, right from day one. The comfortable heating and cooling effect is a direct result of heat distribution and is inspired by nature. Significantly lower inlet and return temperatures can therefore be selected compared to conventional systems. This conserves resources and protects the environment.

Choosing this state of the art solution will allow you to make sustainable adjustments to comfort and performance without making compromises. A comparison of performance values to VDI 6034 and DIN EN 14240 is available on page 9.



The difference lies in radiant energy

The indoor climate control of the OWActive mineral uses the principle of radiant heat exchange and is inspired by nature. Thanks to comfortable radiant heat, the OWActive mineral climate ceiling makes a significant contribution to our well-being.

With its combination of climate control and acoustics, the mineral climate control ceiling can replace conventional heating and air conditioning systems. The high acoustic performance values, among others, easy modification and simple retrofitting of technical building equipment make OWA mineral ceilings a relevant solution.

Benefits of OWActive mineral climate ceilings Raum-K Grid

- Climate and acoustic control integrated into one system instead of separate solutions.
- Direct radiant heat from energy rails with efficient heating/cooling and lower inlet and return temperatures.
- Lower planning and fitting costs compared to conventional systems.
- Integration of technical building equipment at any time as the mineral ceiling elements are easy to fit and modify.
- Comfortable, low-allergen indoor climate due to closed system and no convection/dust turbulence.
- Pleasant room acoustics due to high-performance, integral absorption and sound attenuation.

OWActive mineral climate control ceilings already received many prestigious sustainability awards.



OWActive mineral climate ceilings Raum-K Grid An unique operating principle

Comfortably warm in heating mode

An air-conditioning ceiling produces heat almost exclusively by supplying radiant heat into the room. The pure radiant heat from the air-conditioning ceiling converts every surface in the room into a gently heated surface. However, the air remains pleasantly fresh and is not overheated. This produces a comfortable indoor climate with less dust raising and protects the airways.

Heated water flows through the OWActive mineral climate control ceiling's energy rails.



The heat radiates directly from the energy rails onto all the surfaces in the room.



The heat is gently and uniformly reflected by all the surfaces, providing a comfortable, warm indoor climate.



Pleasantly fresh in cooling mode

During summer, walls and floors can become very hot and emit a great deal of heat due to direct solar radiation and waste heat. Using an OWActive mineral climate control ceiling transfers the heat from the overheated surfaces to the cooler air-conditioning ceiling by radiant heat exchange where it is continuously absorbed with the cooling water. The surfaces therefore cool down and emit less heat into the room. This creates a pleasantly fresh indoor climate without any drafts.

Cooled water flows through the OWActive mineral climate control ceiling's energy rails.



The water in the cool energy rails absorbs and dissipates the room's heat.



All the surfaces in the room are cooled to comfortably regulate body temperature without sweating.



OWActive mineral climate ceilings Raum-K Grid
 Versatile system modules for every application

Easy to modify and highly adaptable

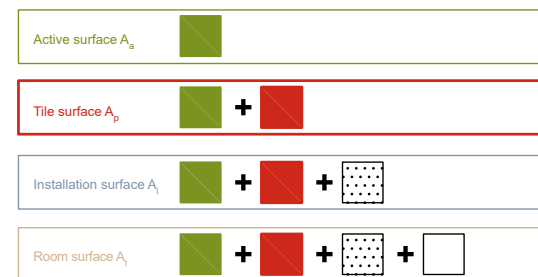
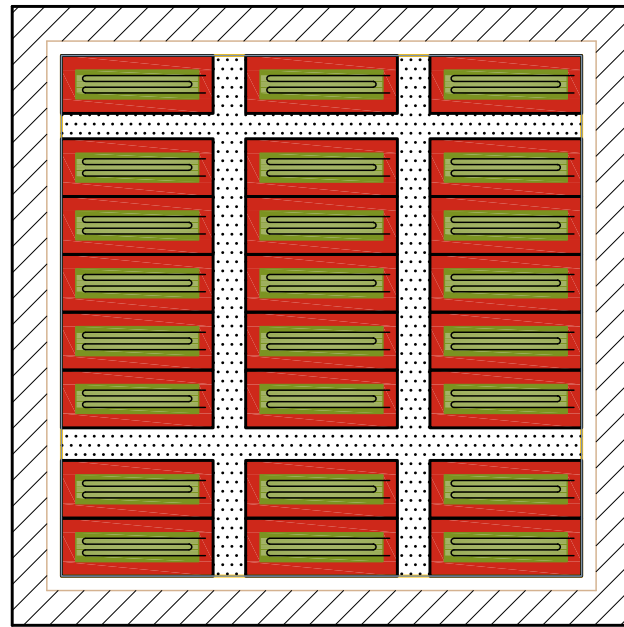


All information on the perfectly matched system components is available from our website: www.owa-ceilings.com and the QR code to the right.



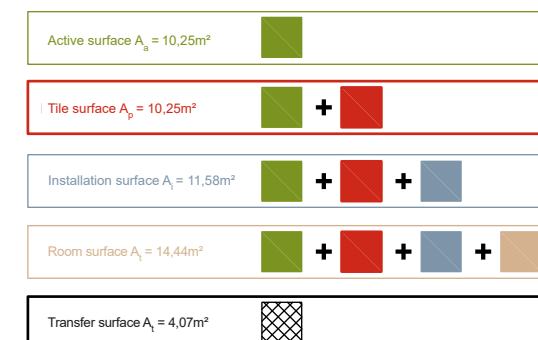
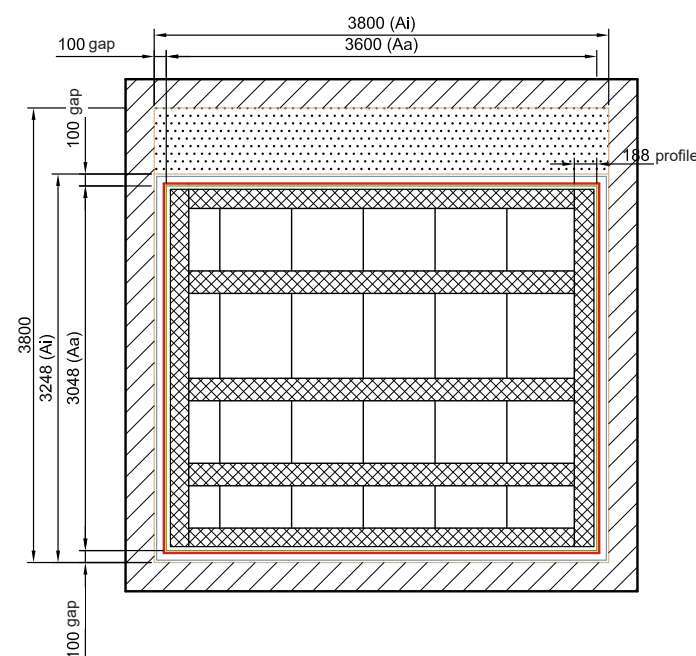
Definitions of surfaces and terms

Definition of surfaces in accordance with VDI 6034



Source: VDI 6034, page 14

OWActive mineral climate ceiling - surfaces in accordance with test certificate



Comparison of performance values

COOLING AND HEATING CEILING SYSTEMS	DIN EN 14240	VDI 6034		
	Values from test certificate	Active surface (Aa in m²)	Tile surface (Ap in m²)	Nominal output with respect to the tile surface (Pp) (W/m² Delta T 8K)
OWActive Raum K-Grid¹	110,07	4,07	10,25	43,70
Supplier A - monolithic acoustic cooling ceiling	79,10 ²	10,17	12,60	63,80 ²
Supplier B - clay panel cooling ceiling	63,90	10,32	10,98	60,10
Supplier C - metal panel cooling ceiling	55,60	12,64	14,30	49,10
OWActive mineral climate ceiling Raum K-Grid³	43,70	10,25	10,25	43,70
Supplier D - metal panel cooling ceiling	65,00	8,14	12,81	41,30
Supplier E - plaster panel cooling ceiling	59,00	9,80	14,18	40,80
OWActive mineral climate ceiling Raum K-Grid⁴	40,20	10,25	10,25	40,20
Supplier F - plaster panel cooling ceiling	63,70	8,17	14,44	36,00
Supplier G - plaster panel cooling ceiling	61,50	8,25	14,25	35,60

¹ Transfer surface (corresponds to Aa on subsequent sketches!) 21,66 m long x 0,188 m wide every rail

² Max. number of cooling profiles with plausible W/m² + Aa, Ap

³ Parallel bandraaster

⁴ Tartan bandraaster

All variants of the OWActive mineral climate control ceiling are tested in accordance with DIN EN 14240 and DIN EN 14037. The performance parameters of the OWActive mineral climate control ceiling can be found in our test certificates that are available in full from us at any time. In view of the prevailing market deviations in the presentation of the relevant performance parameters, we recommend that they are evaluated under comparable conditions in accordance with VDI 6034. Here again, we are happy to advise you at any time.

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