# **OPTIPANEL 18 (PERFORATED) - CEILING**

with integrated capillary tube mat OPTIMAT GB 18









**CLINA - BETTER HEATING AND COOLING** 

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## **DESCRIPTION**

- in perforated 12,5 mm gypsum board panels, with a hole pattern 8/18 R (standard) parallel slots are milled on the back at a distance of 18 mm; the capillary tubes are inserted into these slots and a black acoustic fleece backing is glued on the back of the panel
- on site, the Clina OPTIPANEL 18 are screwed into the holes at right angles to the profiles of the substructure (axis dimension of fine grid ceiling 333 mm) using Knauf-Caps
- the hydraulic connection to the supply and return lines/ ceiling sub-distributors is made using a proven push-lock system with flexible hoses in the cavity of the ceiling
- pipes and sub-distributors are located in the cavity of the ceiling
- the leak test according to the factory guidelines is carried out before the filling work

## **ADVANTAGES**

### HIGH DEGREE OF PREFABRICATION

Quality and performance assurance through factory prefabrication.

#### **EASY RETROFITTING**

Can be screwed onto an existing substructure. The hydraulic connection is located in the cavity of the ceiling.

#### **QUICK AND EASY INSTALLATION**

The system can be installed completely in the drywall works, which insures that everything runs smoothly on the construction site.

#### **GOOD ACOUSTICS**

The sound absorption values of the perforated gypsum board panels remain unchanged.

## **TECHNICAL DATA**



**HEATING CAPACITY** according to DIN EN 14037/5

**92,0 W/m<sup>2</sup>** ΔT = 15 K, active mat surface **80,7 W/m<sup>2</sup>** 

 $\Delta T$  = 15 K, total panel surface



**COOLING CAPACITY** 

according to DIN EN 14240

**72,6 W/m<sup>2</sup>**  $\Delta T = 10$  K, active mat surface

63,7 W/m<sup>2</sup>  $\Delta T = 10$  K, total panel surface



#### **ACOUSTICS**

(applies only to perforated version)

weighted sound absorption coefficient

up to  $\alpha_{w}$  = 0,7 (Class C)

**INSTALLATION HEIGHT**: depending on kind of substructure plus **12,5 mm** OPTIPANEL 18

**SYSTEM WEIGHT** OPTIPANEL 18 (filled with water): 9 kg/m² plus substructure + insulation

Component	Material	Dimensions	Other
CAPILLARY TUBE MAT	polypropylene (PP-R), recyclable	mat distributor pipe: 20 x 2,0 mm capillary tube: 4,3 x 0,8 mm distance of the capillaries: 18 mm	description: OPTIMAT GB 18 push-lock connection: 10 mm angular position: 0° pressure stage: PN 10
GYPSUM BOARD PANEL	gypsum, cardboard	length: 1.998 mm width: 1.188 mm panel thickness: 12,5 mm	straight hole pattern: 8/18 R (standard) 12/25 R; 12/25 Q with black acoustic fleece backing
PUSH-LOCK CONNECTION	polypropylene (PP-R), recyclable brass, partially nickel-plated	push-lock system: 10 mm	lying flat on the back of the panel
CONNECTING HOSE	inside: rubber (EPDM) outside: high pressure nylon fabric connector: nickel-plated brass	lengths: 500/800/1200/5000 mm diameter hose: DN 10 outer diameter connector: 10 mm	flexible pressure stage: PN 10 brass connector on both sides push-lock system
SUPPLY AND RETURN LINES	polypropylene (PP-R), recyclable	depending on room size	

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