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kreon

Ceiling solutions



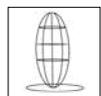
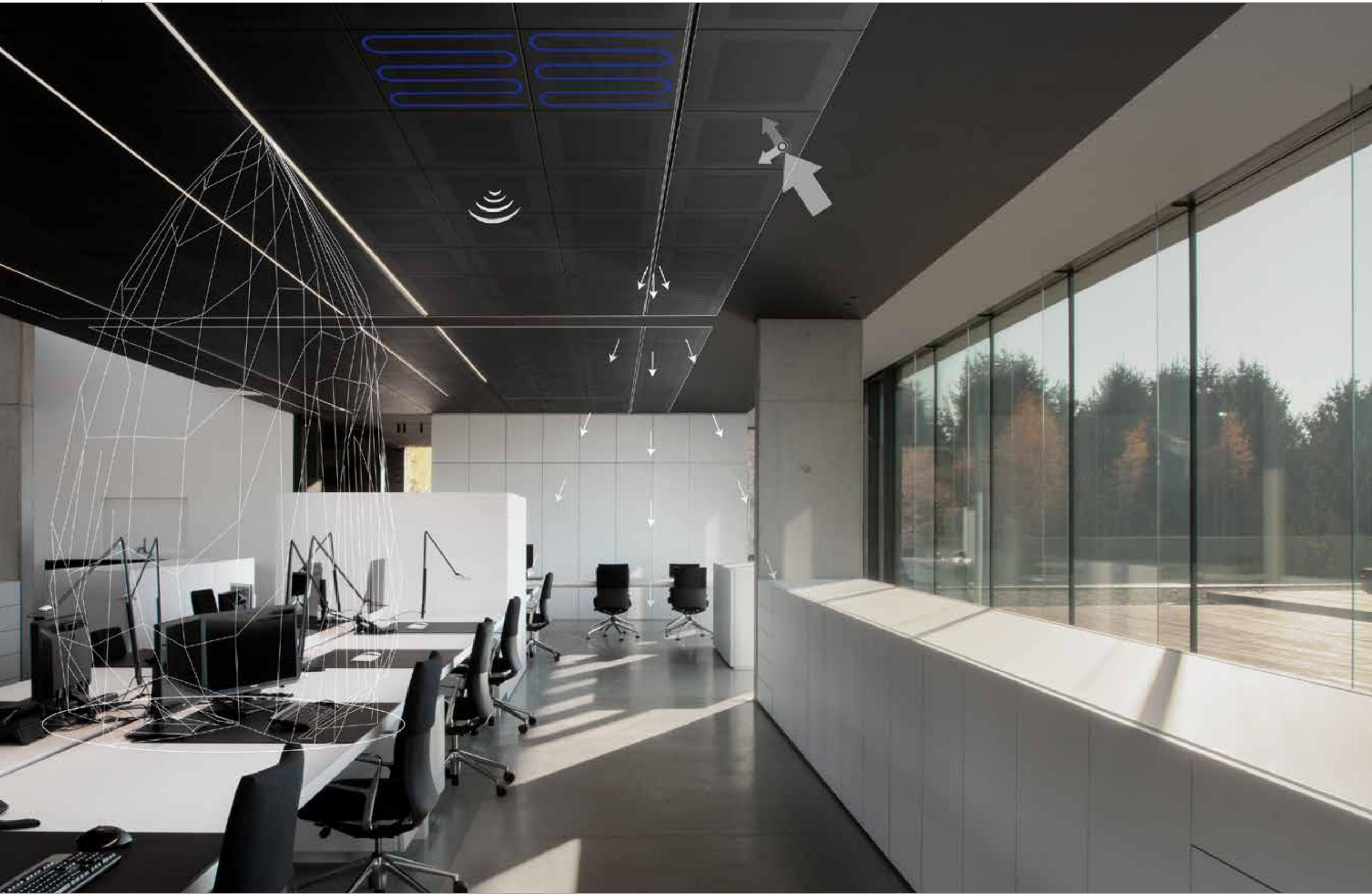
**Kreon modular ceilings aim to materialise simplicity, unity and functionality within its design.**

Simplicity must not be the result of an uncritical reduction. Instead, it should be convergence and synthesis of the complex requirement imposed on ceiling solutions by contemporary architecture. Taking its cue from this concept, Kreon ceiling solutions do more than just span a room. It offers a unique solution for the integration of building service systems that need to be accommodated in the ceiling: lighting, ventilation, cooling, heating, audio, fire protection and much more. Kreon's most pursued objective is to offer unity in design translated through technical solutions.

Design that gives prominence to simplicity, permanence and calmness requires precision so as not to become trivial. The more one condenses, omits and simplifies, the more the significance of the detail is increased. Unity and simplicity of details are the very ones to concur to great architecture.

Kreon is glad to invite you to discuss your architectural requirements with our planning department.

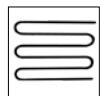
Full integration of building service systems



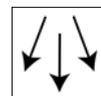
Light



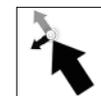
Audio



Climate



Ventilation



Acoustics

## DESIGN

Kreon creates and designs ceiling systems that give every space its own unique personality.

## INTEGRATION

Kreon systems offer full integration of all building service systems:

- **Acoustic solutions** (sound absorption & sound attenuation)
- **Ventilation & Climate control** (cooling & heating)
- **Lighting** (ambient lighting, downlights, projectors, optics, ..)
- **Audio** (highly efficient integrated speakers)

Kreon products are 100% compatible with each other and not only meet the relevant building standards but also exceed them in many cases.

## PROJECT MANAGEMENT

At every stage of your project, we can be the single point of contact for all parties involved. You can count on our full support during:

- **Initial design and specifications**
- **Planning and coordination**
- **Execution**

Our consultants work on applications of every kind: from stadiums, airports, offices, to healthcare projects and beyond.

## ENVIRONMENT

Kreon ceiling solutions deliver the environmental results you need for your projects, from achieving energy savings with highly efficient LED luminaires, simplifying waste management by recycling, and enhancing indoor environmental quality with acoustics.

Kreon Ceiling solutions are BREEAM and LEED compliant.



### Clip-in

- Concealed grid
- Grid sizes W 100-800mm, L 500-1800mm or custom sizes up to 2400mm
- Modular design
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build

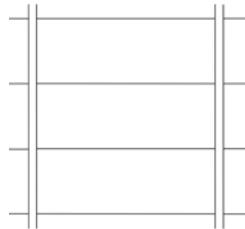


### Applications

Office,  
Retail,  
Health care,  
Schools,  
Residential, ...

### Lay-on

- Visible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build

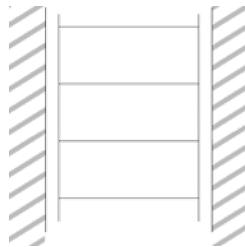


### Applications

Office (rental)  
Modular spaces

### Hook-on

- Invisible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build



### Applications

Corridors

### Rytmi (available on request)

- Modular ceiling that refers to the basic elements of architectural design
- Custom sizes up to 2400mm
- Seamless integration of all building services
- Sound absorption class A
- High visual impact
- Durable build



### Applications

High end projects,  
Showrooms,  
Lobby's, Offices, ....

### Sound absorption

Sound absorption is the ability of a surface to absorb sound, minimizing sound reflection in the room.

Reflected sounds create undesired and uncomfortable reverberations throughout the area and will ultimately increase the perceived sound level.

Kreon suspended ceilings are an important factor in reducing these undesired reflections through the use of sound absorbing materials, combined with the perforations in the ceiling allowing the sound to pass through.

The sound absorption coefficient  $\alpha_w$  is the fraction of the total sound that is absorbed by the suspended ceiling. The remaining unabsorbed fraction is reflected back into the room.

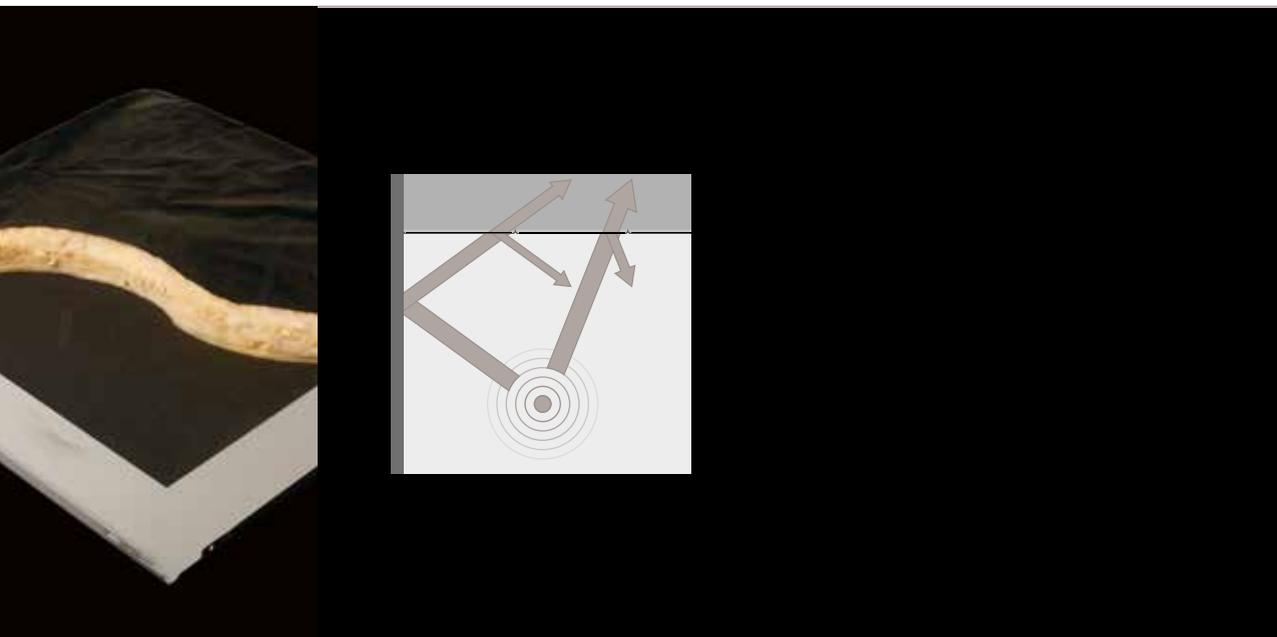
The sound absorption coefficient has a value between 0,0 (no absorption - all the sound is reflected) and 1,0 (complete absorption - equivalent to an open window).

The absorption factor is measured according EN20354:2003 and EN11654:1997

Kreon ceilings are available in different perforations equipped with an acoustic fleece. Shrink-wrapped wool inlays are available as an option to further improve the acoustic performance.

The absorption factor for different combinations of perforations and acoustic options ranges from 0,45 (standard perforation, 100mm non-perfo border, acoustic fleece) to 1,00 (standard perforation, full-perfo field, sealed mineral wool inlay)

- Absorption factor 0,45 – 1,00
- Different perforation types and perforation fields
- Standard acoustic fleece
- Optional sealed mineral wool inlay



Kreon provides comfortable, silent, efficient and aesthetically pleasing ventilation solutions. All diffusers can be used for the supply or return of cooled or warm air. Our experts guide you to the best solution for your needs and help you make the right choice.

### In-tile

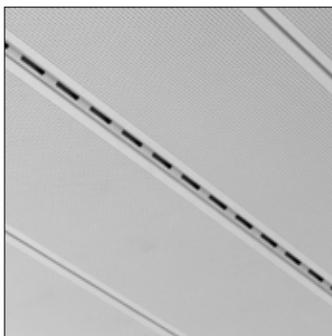
Fuo Square is seamlessly integrated into a Kreon ceiling tile, assuring a uniform ceiling surface.



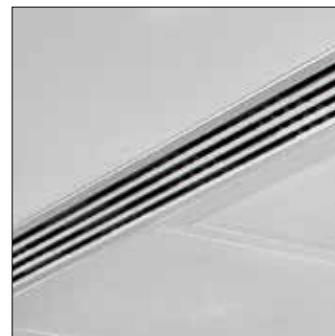
Fuo Square

### Between-tile

Vento and Fuo Linearir are discrete inductive units for installation between Kreon ceiling tiles.



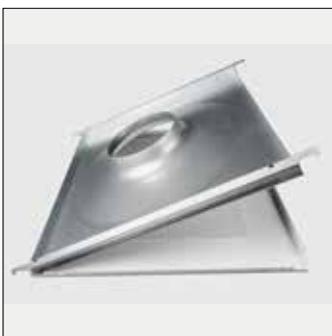
Vento



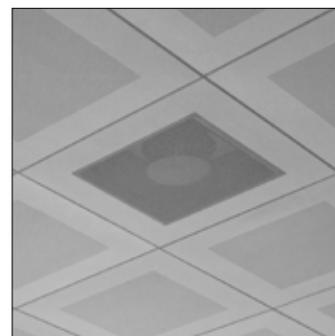
Fuo Linearir

### On-tile

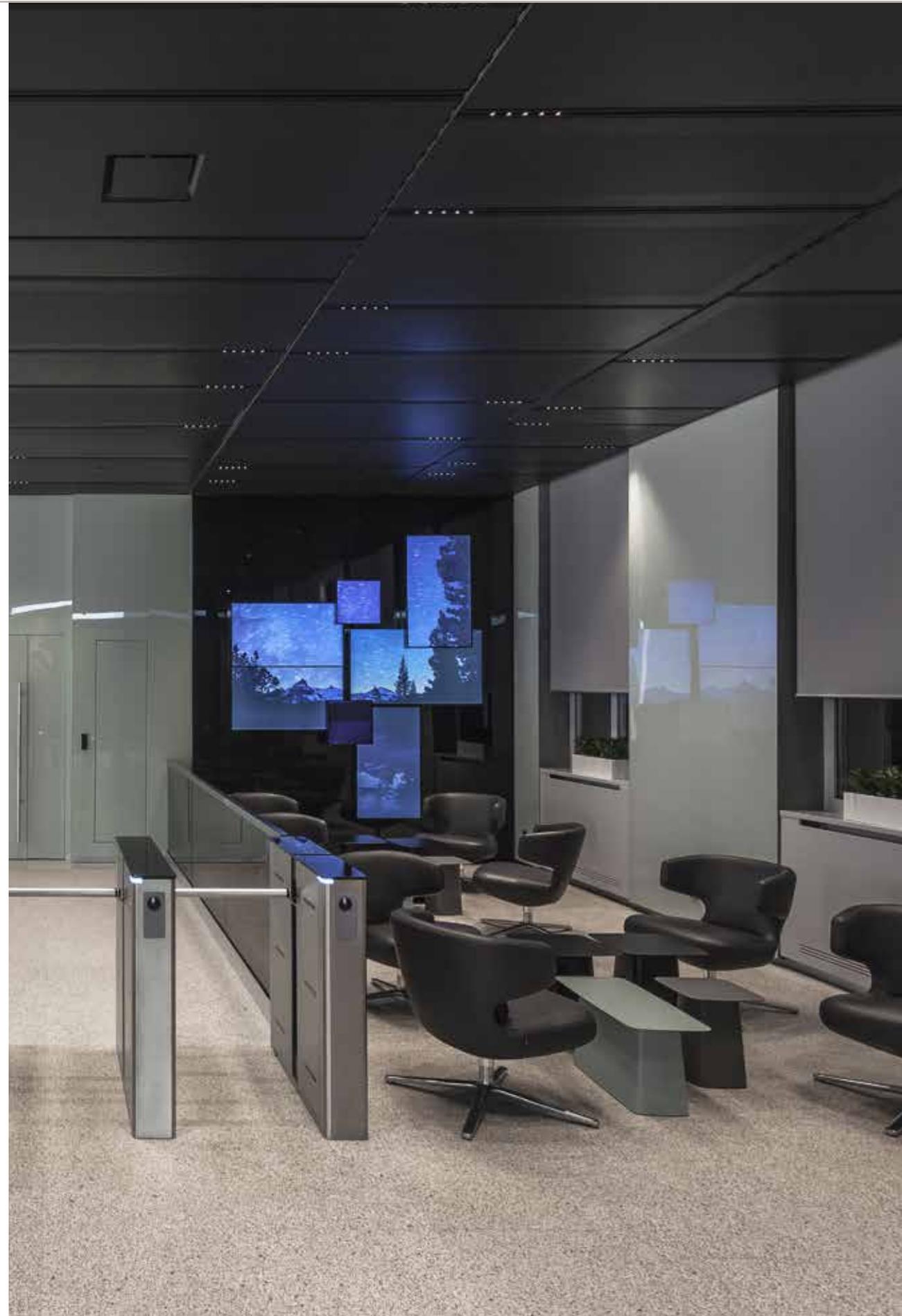
Fuo C2 and Fuo C5 are completely invisible diffusers. They are integrated onto the Kreon ceiling tiles using the standard perforations to introduce the air into the room.



Fuo C2



Fuo C5



## Climate ceiling

**Project** Kreon HQ  
**Location** Opglabbeek, Belgium

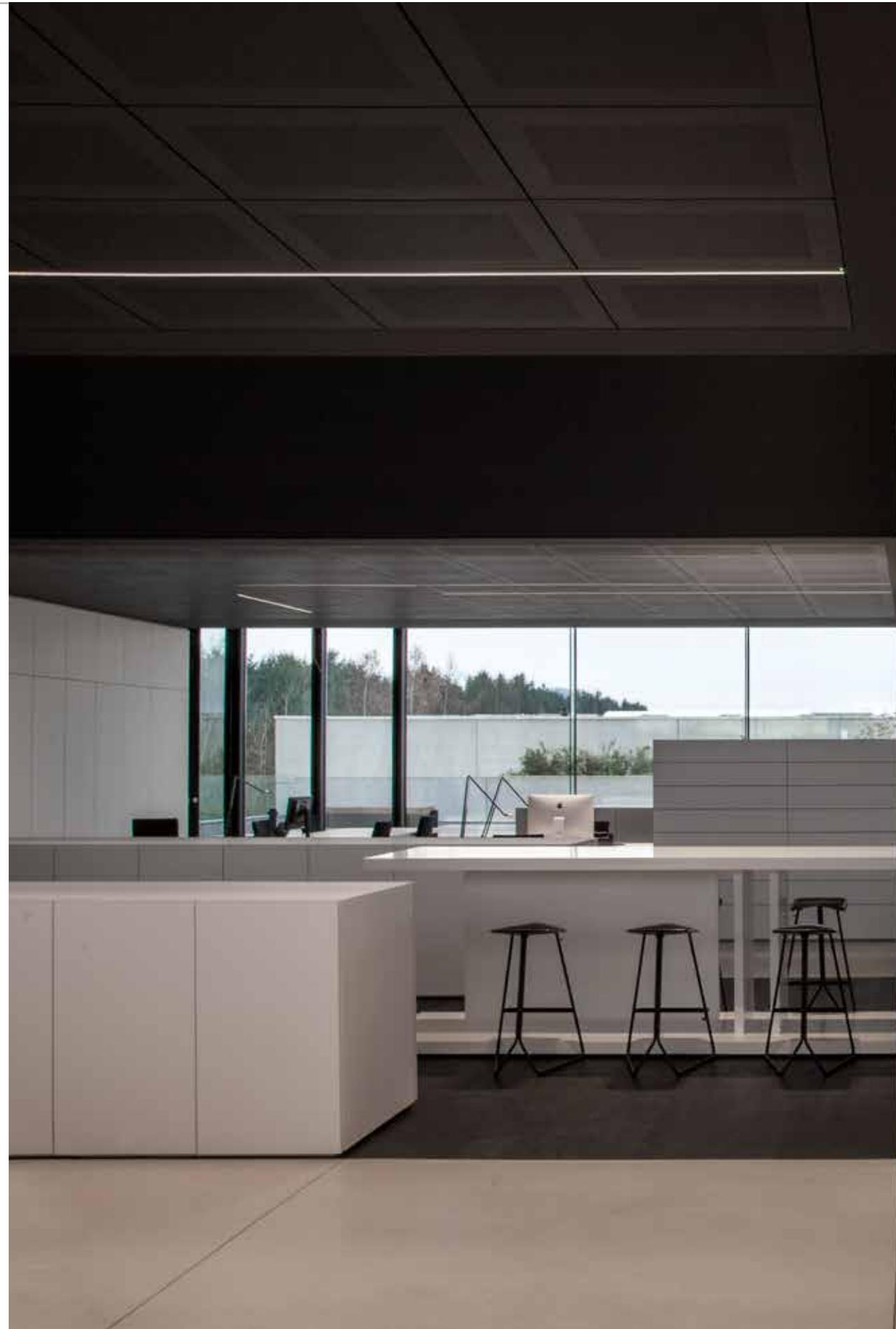
**Architect** Kreon  
**Photographer** Kreon

Invisibly and unobtrusively integrated in Kreon Ceiling Solutions, the climate ceiling generates a comfortable, healthy and clean indoor climate.

Cooling and heating is distributed uniformly throughout the entire surface of the room, without any draughts and in complete silence.

Having no moving parts or dust collecting filters, maintenance is reduced to an absolute minimum whilst assuring a healthy indoor climate.

- Unobtrusive climate system
- Reduced maintenance
- Comfortable and healthy
- Energy saving and sustainable
- Economical
- Flexible



## Climate ceiling

Invisibly and unobtrusively integrated in Kreon Ceiling Solutions, the climate ceiling generates a comfortable, healthy and clean indoor climate. Cooling and heating is distributed uniformly throughout the entire surface of the room, without any draughts and in complete silence. Having no moving parts or dust collecting filters, maintenance is reduced to an absolute minimum whilst assuring a healthy indoor climate.

### Kreon climate ceiling stands for:

- Comfort: draught-free and noiseless
- Design: invisible integration in ceiling
- Health: no breeding ground for germs, bacteria, ...
- Easy maintenance: no motors, filters, ...
- Economy: low running and maintenance cost
- Energy saving: compatible with heatpump- and geothermal installations
- Flexible: cooling and heat

Kreon climate ceiling guarantees the most comfortable indoor climate by making use of radiant heating and cooling. In summer, the chilled ceiling absorbs excess heat while cooling down the room through convection. During winter, the radiant ceiling transfers heating directly to people and surfaces. Both heating and cooling is evenly spread throughout the entire surface of the room without any draughts or noises, offering the best possible indoor comfort.



gentle coolness



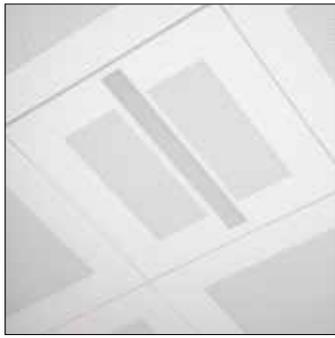
radiant heating



# Workspace lighting

Kreon's workspace lighting solutions are designed to provide efficient and controlled sources of illuminance that remain discreet, but intentional within their surroundings.

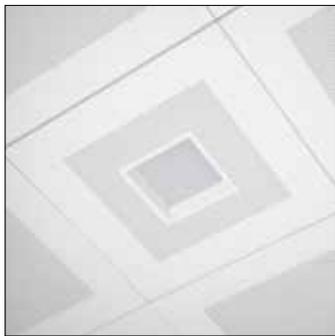
Key to good workplace lighting design is luminance control. Kreon fulfils this obligation by offering a choice of optics and dimming options that can surpass requirements and provide minimum user distraction.



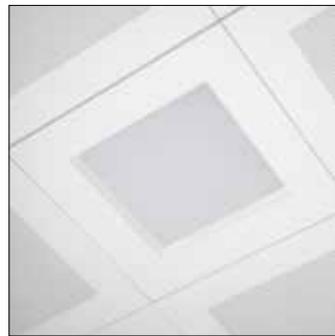
Long Mini Down



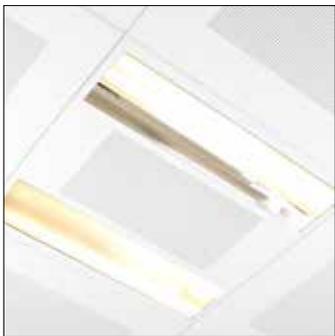
Super Down



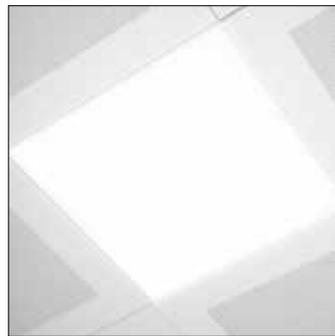
Maxi Down



E-Down



Superside



Skytile



## In-tile: downlights

Kreon Oblique downlights (Down & Aplis) provide depth to architecture through a unique system of build-in louvres. Down (square louvre) & Aplis (circular louvre) consist of two elements: the luminaire housing mounted on the tile and the louvre for the seamless finish.

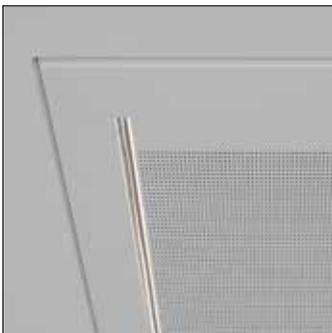


Down



Aplis

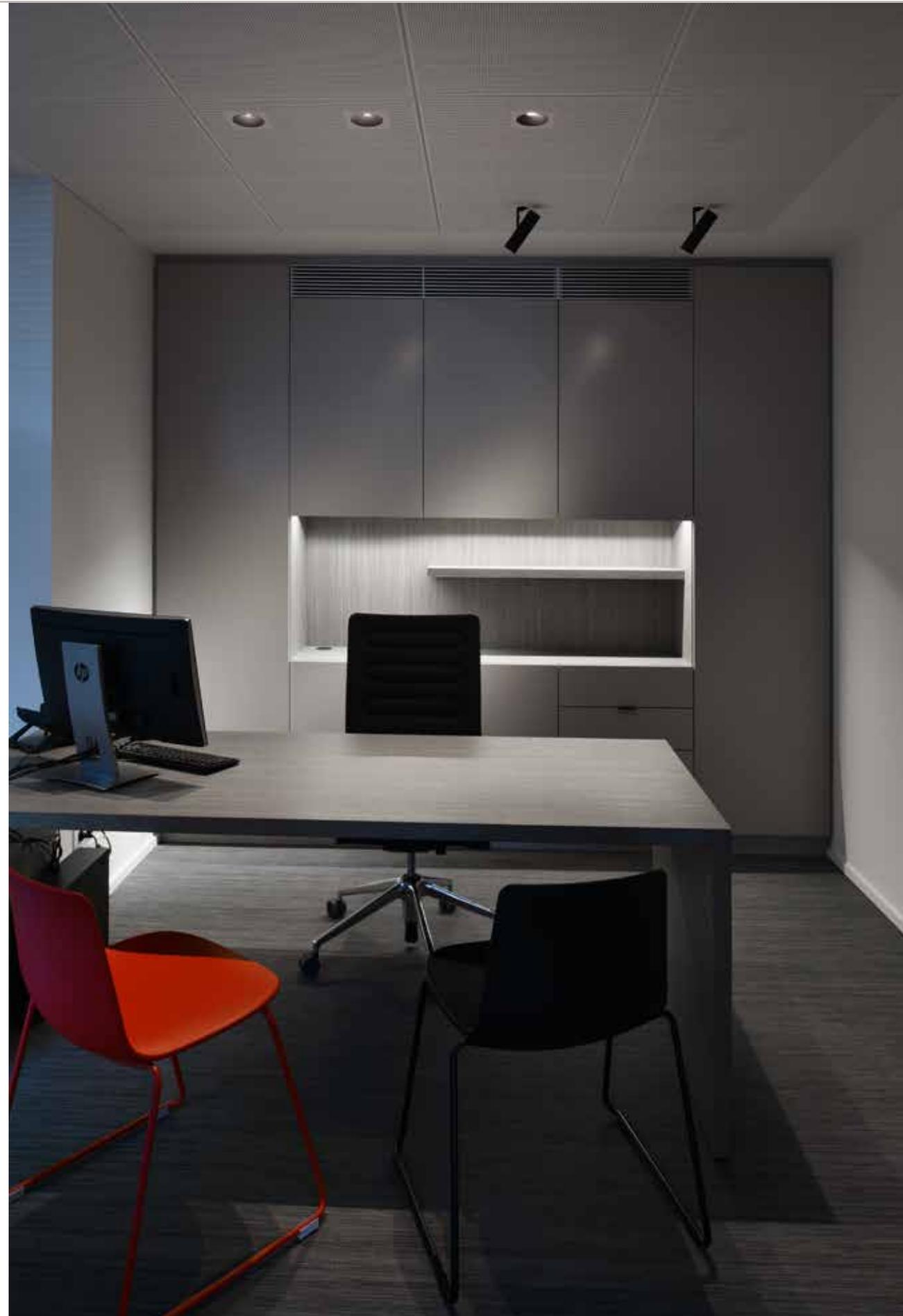
## In-tile: optic



Rei



Tenno



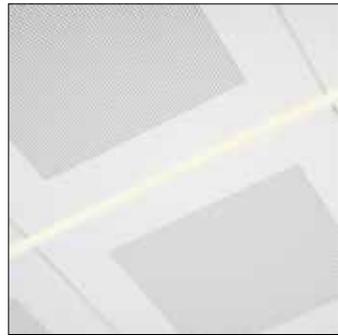
## Between-tile: profiles

### Integrated lighting in Kreon ceiling tiles

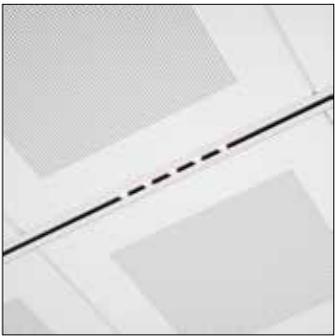
All of our tools of light profile systems can easily be integrated in our ceiling tiles. We offer 6 different profile systems.



Cana



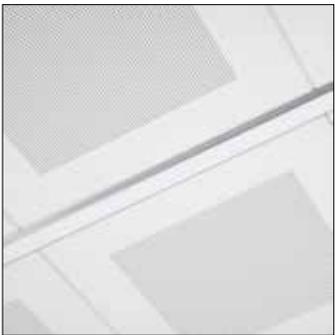
Lini & Johto



Nuit



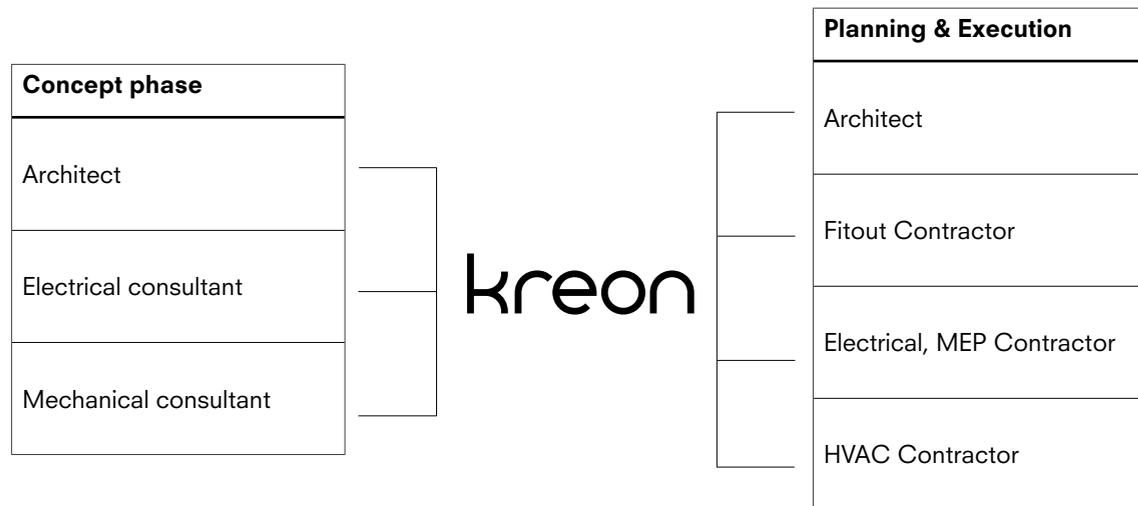
Prologe



Rei



At every stage of your project, Kreon can be the single point of contact for all parties involved.

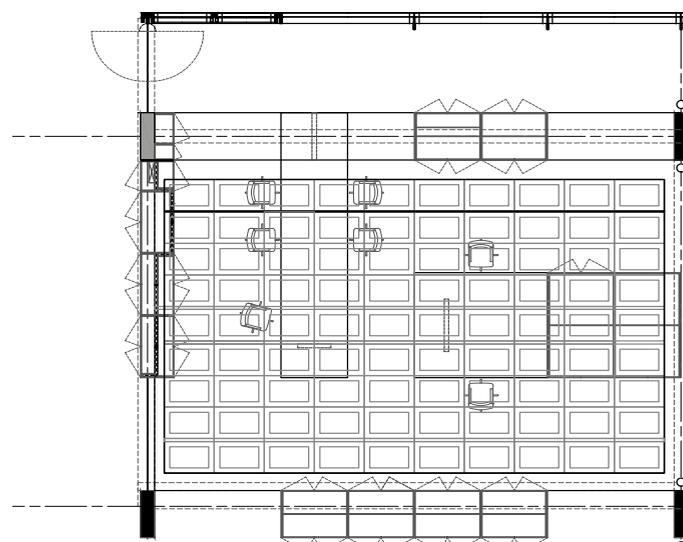


**Your Kreon ceiling will be:**

- Arranged to perfectly fit the individual character and function of your rooms
- Constructed to provide and conceal light, audio, HVAC, and all other services
- Easily accessible for maintenance
- Flexible and future-proof

**Carefully planned and monitored**

Kreon has the experience and the tools to plan your ceiling project in the most meticulous way. Since every detail of your project is in our scope, we can and will continuously monitor your wishes and your budget.



grid plan



### Mumbai Airport, Mumbai - India

**Architect:** SOM

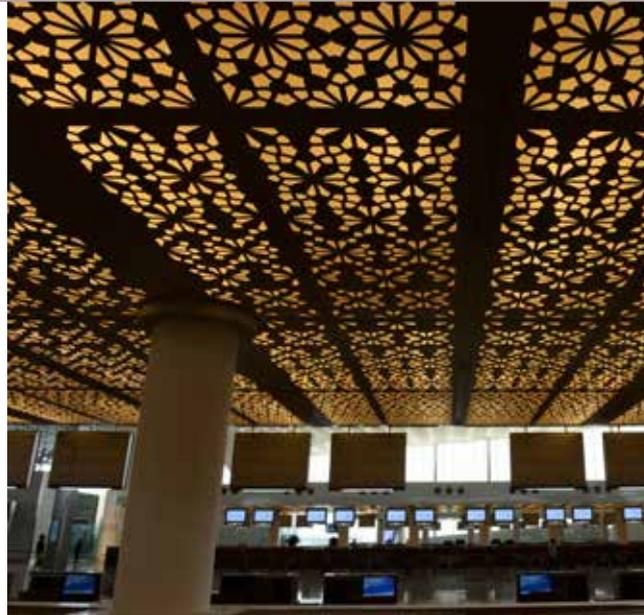
**Specifications:**

**Description:** perfo Hook-on

**Perforation:** custom made floral perforation

**Measurements:** several custom made panels

**Colour tiles:** colour to match alubond alk-502.ccl



### Lunor, Unterhaugstett - Germany

**Architect:** Schmelzle + Partner Architekten BDA

**Specifications:**

**Description:** perfo Clip-in

**Perforation:** standard perforation Ø2,5

**Measurements:** several custom made panels

**Colour tiles:** RAL9004, 20% gloss

**Ventilation:** Vento, CU Clima ceiling

**Lighting:** Lini medium



### Delorge, Hasselt - Belgium

**Architect:** Mamu Architecten

**Specifications:**

**Description:** full perfo Clip-in

**Perforation:** custom made perforation for Audi

**Measurements tiles:** 625x1250

**Colour tiles:** RAL 9016, 20% gloss

**Ventilation:** Vento 18, perfo Fuo C2

**Lighting:** Aplis 80/165, Signs, Super Down, Rei, Cadre, Aplis 80/165, Prologe 80 in-Line, Nuit, Regard



### Allen & Overy, Bangkok - Thailand

**Architect:** Orbit design

**Specifications:**

**Description:** full perfo Clip-in

**Perforation:** standard perforation Ø2,5

**Measurements:** several custom made panels

**Colour tiles:** Vektron white

**Ventilation:** Vento, Perfo Fuo C2

**Lighting:** Custom made Prologe 80 - Prologe Ligna T16



### Avrora, Moscow - Russia

**Architect:** UNK project

**Specifications:**

**Description:** perfo Lay-on

**Perforation:** standard perforation Ø2,5

**Measurements:** different custom made panels

**Colour tiles:** RAL7021 5% gloss

**Ventilation:** Vento, Fuo Square

**Lighting:** Nuit



### Qatar Airways lounges

**Architect:** TP Bennet LLP

**Specifications:**

**Description:** triangular Clip-in

**Perforation:** non perfo / perforation R1

**Measurements:** several custom made panels

**Colour tiles:** type A: Champagne bronze, type B: RAL0602005 40% gloss, type C: RAL9010 20% gloss

**Lighting:** Down 76 LED, Down 80 LED



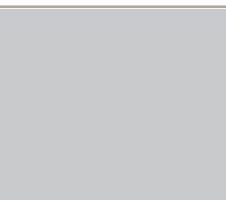
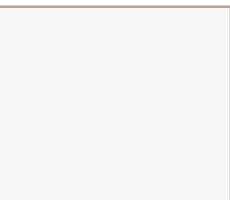
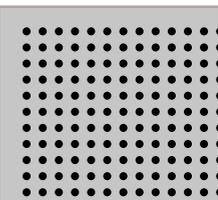
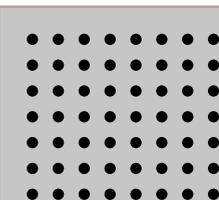
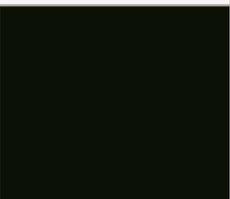
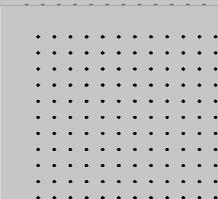
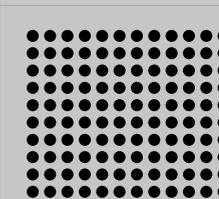
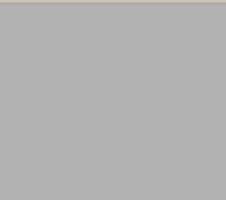
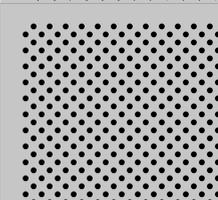
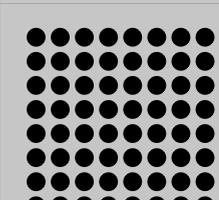
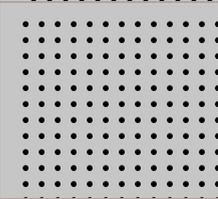
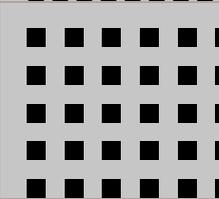
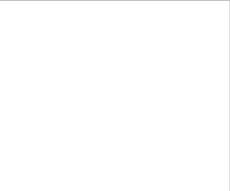
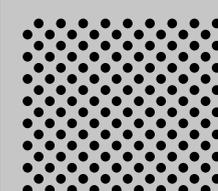
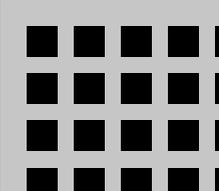
# Colours & Materials

Colour, material and contrast raise anonymous surfaces into determining elements within architecture. In order to offer as many choices possible to enhance your architecture, Kreon presents a wide pallet of ceiling colours.

All products can be delivered in galvanised steel, aluminium and stainless steel and are available in any RAL colour. Kreon tiles are powder coated with a minimal thickness of 50 micron and a gloss level between 3% and 20% according to Gardner 60°. This low gloss level generates depth effect and bears a smooth ambiance. Products are colour matched for the purpose of optimal integration between lighting and services.

## Standard colours

(\*other RAL colours are available on request)

	Vektron grey, gloss ≤ 10%		Vektron white, gloss ≤ 6%		<b>Standard perforation</b> hole diameter 2,5mm, square pitch, 16,5% open area		<b>Perforation R2</b> hole diameter 3mm, square pitch, 15,05 % open area
	RAL7044, gloss ≤ 3%		RAL9004, gloss ≤ 3%		<b>Perforation R0</b> hole diameter 0,8mm, square pitch, 1,5% open area		<b>Perforation R3</b> hole diameter 3,2mm, square pitch, 38,3% open area
	RAL9006, gloss ≥ 20%		RAL9010, gloss ≥ 20%		<b>Perforation R1</b> hole diameter 1,8mm, diagonal pitch, 21% open area		<b>Perforation R5</b> hole diameter 5mm, square pitch, 48,2% open area
	RAL7035, gloss ≤ 5%		RAL9016, gloss ≤ 5%		<b>Perforation R1</b> hole diameter 1,8mm, square pitch, 10,59 % open area		<b>Perforation S5</b> square perforation 5mm, square pitch, 25,6% open area
	RAL ?*		RAL ?*		<b>Perforation R2</b> hole diameter 3mm, diagonal pitch, 30,1% open area		<b>Perforation S8</b> square perforation 8mm, square pitch, 42% open area

### Remarks

The colours shown may differ from actual colours.  
**Colour samples available: vk760003**  
 Polyester powder coating on sheetmetal tile.

# Perforations

Perforations do not only determine the appearance of your ceiling, but also contribute to the comfort attributes of the space. They also assist in acoustic control and can influence air circulation. Kreon offers a choice of perforations that differ in shape, pattern and size.

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\* Office and showroom

