



## **Knauf** Tiled Ceiling System

**New:** Quick installation and easy ceiling solutions

## Knauf Tiled Ceiling System

Knauf's tiled ceiling system is a concept of modular suspended ceiling, ideal for concealing mechanical and electrical pipes and cabling as well as air-conditioning ducts. Additional necessary fixtures such as fire detectors and lighting fixtures can also be installed within the suspended ceilings. Furthermore, Knauf Perforated Ceiling Tiles can vastly improve acoustical conditions in indoor areas.

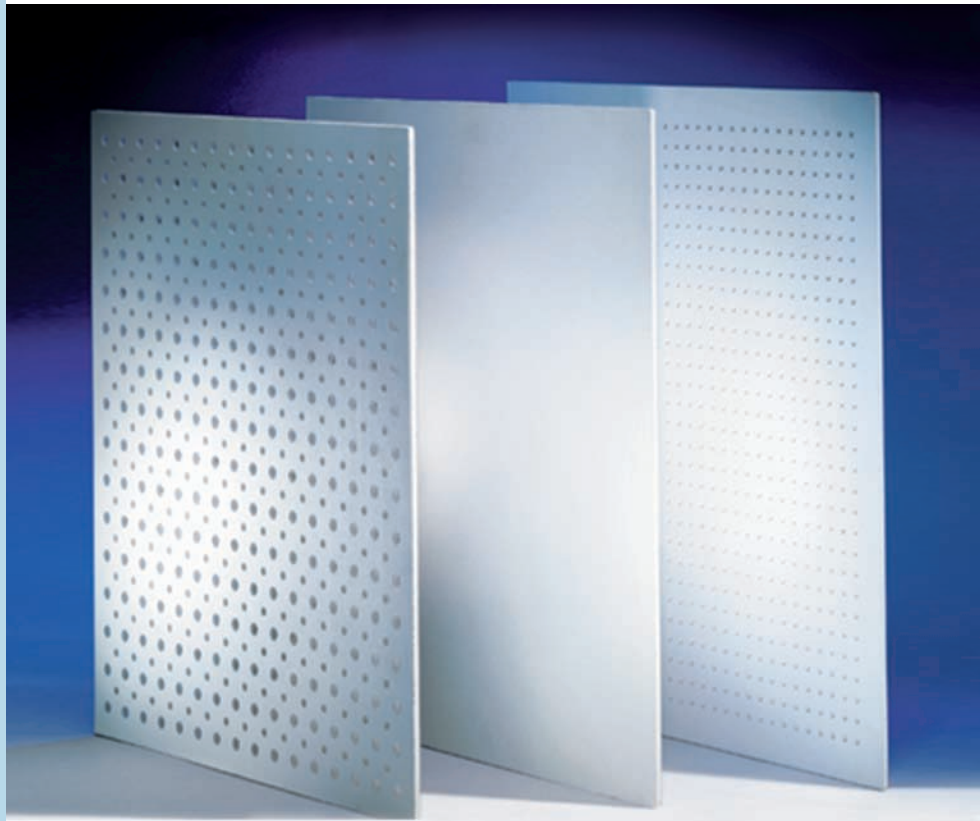
Knauf Tiled Ceiling System consists of a suspended grid (made of lightweight T 24 profiles) and gypsum tiles. The grid is connected to the main soffit by adjustable hangers and the gypsum tiles are placed in the grid frames.

### Advantages

- Dry construction method with easy and speedy installation
- Easy maintenance and repair
- Easy access to installations, services and ducts
- Superb acoustic absorption with perforated tiles

### Application Areas

- Offices
- Hospitals
- Shopping Malls
- Hotels
- Residential Projects
- Exhibition Halls and Convention Centers
- Any area where high levels of acoustic absorption are required



## Knauf Ceiling Tiles

Knauf Ceiling Tiles are gypsum based, 600 x 600 mm tiles which are produced in two varieties: plain (non-perforated) and acoustical (perforated).

Plain gypsum ceiling tiles (non-perforated):

- Non-laminated
- PVC laminated (front side) and / or aluminum foil laminated (backside)

Acoustical gypsum ceiling tiles (perforated)\*:

- Knauf Acoustical Gypsum Tile 8/12/36R Circular
- Knauf Acoustical Gypsum Tile 6/18R Circular
- Knauf Acoustical Gypsum Tile 12/25Q Square

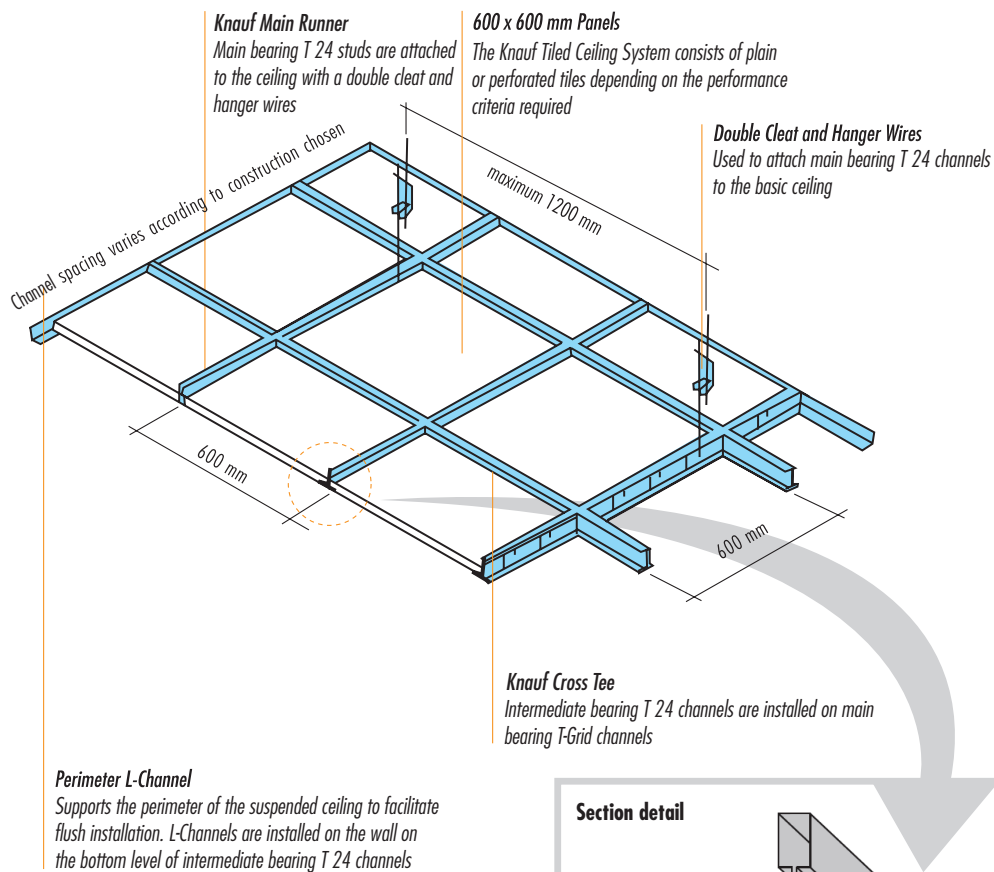
*\*Acoustical tiles can also be produced with PVC lamination.*

## Superb Acoustic Performance

The main property of acoustical tiles is their high sound-absorption property. The fleece lining on the back of the tile absorbs sound waves and reduces echoes (using an additional layer of mineral wool will increase the sound absorption level). Acoustical tiles are ideal for buildings such as schools, offices, conference rooms and theaters where acoustical requirements should be met.



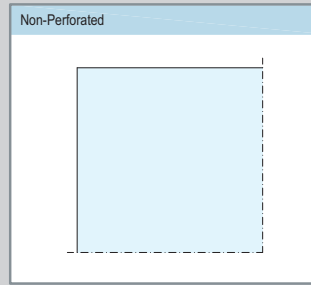
## System Overview



# Tile Types

## Knauf Plain Gypsum Ceiling Tiles

Knauf Plain Gypsum Ceiling Tiles are imperforated and non-acoustical. These tiles are produced in two varieties: non-laminated and laminated. Non-laminated tiles can be easily painted in preferred colors. PVC laminated tiles do not need painting and therefore can be installed directly. Aluminum back-laminated tiles are suitable for humid areas with high possibilities of condensation.

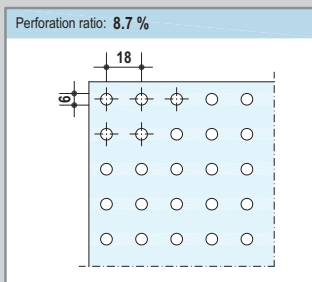


### Physical Properties

Dimensions: 600 x 600 mm  
Thickness: 9.5 mm / 12.5 mm

## Knauf Acoustical Gypsum Tile 6/18R Circular

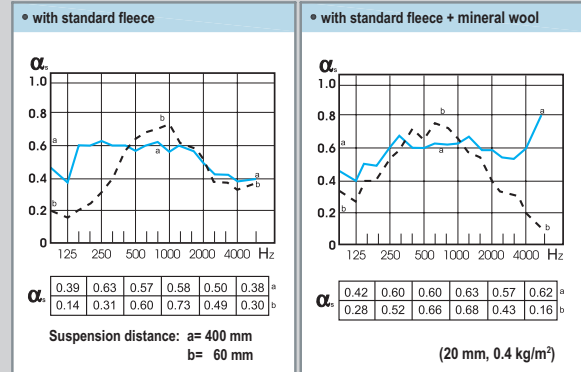
Knauf Acoustical Gypsum Tile Model 6/18 is a circular perforated sound-absorbent tile. Its perforation pattern consists of 6 mm circular holes at an 18 mm c/c distance.



### Physical Properties

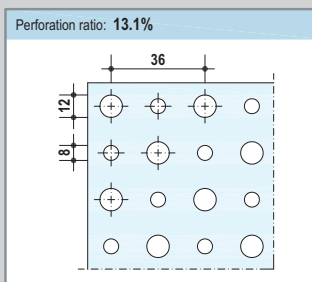
Dimensions: 600 x 600 mm  
Thickness: 9.5 mm / 12.5 mm

### Sound Absorption Diagrams for 6/18 Tiles



## Knauf Acoustical Gypsum Tile 8/12/36R Alternating Circular

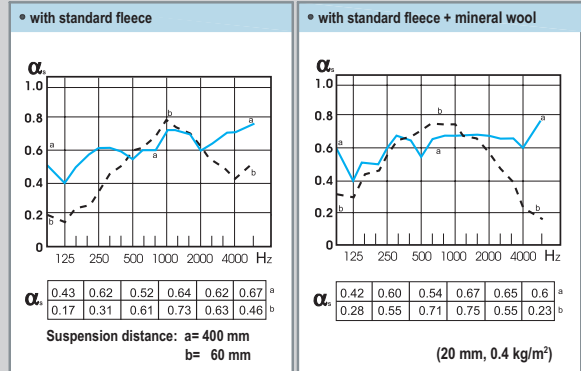
Knauf Acoustical Gypsum Tile 8/12/36R is a medium-level sound-absorbent alternating circular perforated tile. Its perforation pattern consists of 8 mm and 12 mm circular holes at a 36 mm c/c distance.



### Physical Properties

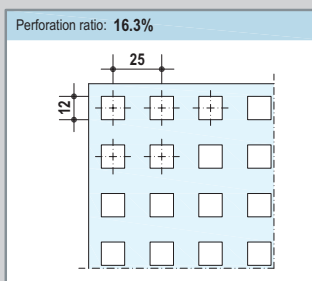
Dimensions: 600 x 600 mm  
Thickness: 9.5 mm / 12.5 mm

### Sound Absorption Diagrams for 8/12/36 Tiles



## Knauf Acoustical Gypsum Tile 12/25Q Square

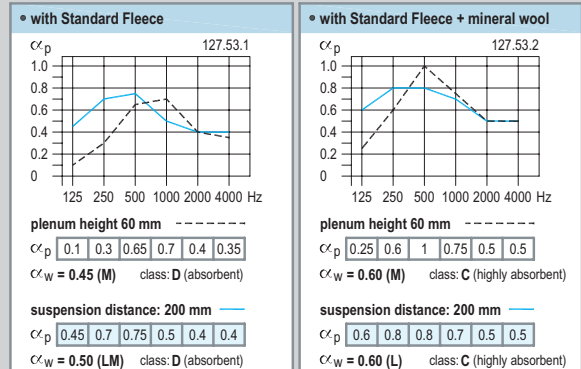
Knauf Acoustical Gypsum Tile 12/25Q is a highly sound-absorbent square perforated tile. Its perforation pattern consists of 12x12 mm square holes at a 25 mm c/c distance.



### Physical Properties

Dimensions: 600 x 600 mm  
Thickness: 9.5 mm / 12.5 mm

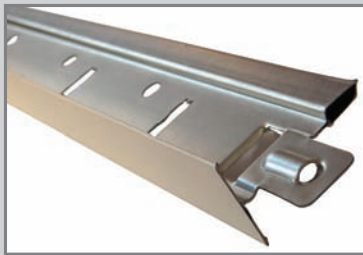
### Sound Absorption Diagrams for 12/25 Tiles



### Knauf Gypsum Tile Types and Properties - Summary Table

Tile Type / Finishing	Gypsum Board Type	Thickness (mm)	Edge Type	Size (mm)	Perforation Type	Perforation Ratio	PVC Facing	Aluminum or Red PVC Backing	Fleece Backing
Plain / Regular	Regular (RG) Moisture resistant (MR)	9.5 12.5	VK	600x600	-	-	-	-	-
Plain / Laminated					-	-	Optional	Optional	-
Perforated / Acoustic					Circular 8/12/36	12.6%	Optional	-	Optional
Perforated / Acoustic Laminated					Circular 6/18	8.7%			
					Squared 12/25	23.0%			Optional

### T-Grid System Components



Knauf Main Runner 3.6 m



Knauf Cross Tee - 1.2 m



Knauf Cross Tee - 0.6 m



Knauf L Perimeter Trim - 3.05 m



Knauf Z Perimeter Trim - 3.05 m (optional)



Knauf Double Cleat



Knauf Hanger Wire



Knauf Plastic Plug & Screw



Knauf Ceiling Steel Dowel

## Installation

The Perimeter Angle L-channel is installed flush on the side walls with Knauf plastic plug and screws centered at 60 cm. Mark the position of the Knauf hanger wires on the ceiling before attaching them with Knauf ceiling steel dowels to the ceilings. If lighting fixtures or basic audio equipment is to be attached, provide extra on-site bracing in order to avoid any conflict with the overall suspended ceiling system. Suspend the main bearing T 24 channels using adjustable hanger wires and double cleats. Install intermediate bearing T 24 channels on main bearing T 24 channels to make up a flush 60 x 60 grid. Ensure that the grid is totally flush. Finally, install Knauf Ceiling Tiles as required.

### Alignment

The alignment between main bearing members and intermediate bearing members of the ceiling grid must be mutually perpendicular at all points. Fasten hanger wires rigidly to avoid the sagging of ceiling loads. Main and intermediate bearing members should not be attached on L-Channels. This way the ceiling grid is free to adapt to movements in the main structure.

### Loads

If any other fixtures or insulation material are being used, include their weight during load calculation procedures.



1. Fixing the perimeter L-channel



2. Fixing the hangers to the main soffit



3. Installing the suspended grid



4. Placing the tiles in the grid frames

### Material Consumption Table

Products	Unit Consumption per m <sup>2</sup>	
Knauf Ceiling Tiles	1	m <sup>2</sup>
Knauf Main Runner - 3.6 m	0.83	m
Knauf Cross Tee - 1.2 m	1.67	m
Knauf Cross Tee - 0.6 m	0.83	m
Knauf L Perimeter Trim - 3.05 m	0.7	m
Knauf Double Cleat	1	pc
Knauf Hanger Wire	1	pc
Knauf Plastic Plug & Screw	1	pc
Knauf Ceiling Steel Dowel	1	pc

Item	Description	No. of units	Unit price	Total price
	<b>Knauf Tiled Ceiling System EN 13964</b> <b>Specifications</b> ..... Installation height in m ....., suspension height in cm .....,* anchored on reinforced concrete/ wooden beams, spacing in cm ...../ steel girder, type ....., spacing in cm ....., * metal grid formed with main and cross lightweight Knauf T24 channels and perimeter Knauf L Angle/Knauf Z Angle.....* channels, suspended with 4mm Knauf Hanger Wires and Clips,* cladding made of single layer 600 x 600mm Knauf plain gypsum tiles EN 14190 tile type Regular/Moisture Resistant.....* tile thickness 9.5/12.5.....* lamination on front face with/without.....* PVC facing lamination on back with/without.....* Aluminum PVC			
	Product/ System: <b>Knauf Tiled Ceiling System EN 13964</b>	..... m <sup>2</sup>	.....	.....
	<b>Knauf Acoustic Tiled Ceiling System EN 13964</b> <b>Specifications</b> ..... Installation height in m ....., suspension height in cm .....,* sound absorption coefficient according to DIN EN ISO 11654 $\alpha =$ ..... anchored on reinforced concrete/ wooden beams, spacing in cm ...../ steel girder, type ....., spacing in cm ....., * metal grid formed with main and cross lightweight Knauf T24 channels and perimeter Knauf L Angle/Knauf Z Angle.....* channels, suspended with 4mm Knauf Hanger Wires and Clips, cladding made of single layer 600 x 600mm Knauf acoustic gypsum tiles EN 14190 tile type Regular/Moisture Resistant.....* tile perforation type 8/12/36 R/ 6/18 R/ 12/25 Q tile thickness 9.5/12.5.....* lamination on front face with/without.....* PVC facing lamination on back with/without.....* sound absorbent fleece, color: white/black.....*			
	Product/ System: <b>Knauf Acoustic Tiled Ceiling System EN 13964</b>	..... m <sup>2</sup>	.....	.....
	* Cancel not applicable items			Sub-total .....

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#### **D11 Knauf Ceilings Technical Datasheet**

#### **W11 Knauf Partitions Technical Datasheet**

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#### **Knauf Access Panels Technical Brochure**

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