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# **KNAUF**

## Gypsum Fibre Boards

DESIGNED  
FOR SUCCESS

EXCLUSIVE STRENGTH  
LONGTERM EFFICIENCY  
RELIABLE SECURITY

[www.knauf.bg](http://www.knauf.bg)



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Impact resistance



Moisture resistance



Fire resistance



Sound protection



Impact sound reduction



Radiant heating/cooling



Suitable for dry screed

# KNAUF. VIDIN GYPSUM FIBRE BOARD PLANT

With more than 220 factories and about 70 locations in more than 80 countries, Knauf is one of the leading manufacturers of drywall systems, plasters and accessories, insulating materials, paints, flooring systems as well as construction machinery and tools. In the early 1980s, Nicolaus and Baldwin Knauf, the founders' sons, took over the management of the company now known as the Knauf Group. Many of the subsidiaries are also run by family members. Manfred Grundke and Alexander Knauf currently run the Knauf

Group as General Partners. Nicolaus and Baldwin Knauf are still engaged in business by alternating as Chairman and Deputy Chairman of the Board of Shareholders to maintain continuity.

Gypsum Fibre Factory Vidin is located on the banks of the Danube, near the borders with Romania and Serbia. Already 20 years (since 1997) he produces building boards under the brands

Knauf Vidwall and Vidifloor as well as Vidiphonic, Vidifire A1 and Vidicomfort, which have been applied in more than 20 countries around the world.

As a leading manufacturer, Knauf maintains the high quality of its products and systems as well as environmental and human health care, which is confirmed by the international standards ISO 9001, ISO 14001 and OHSAS.

## Certificates:

The safety of gypsum fibre boards for human health during installation and operation has been proven by the Institute of Building Biology in Rosenheim, Germany. The Environmental Product Declaration (EPD) testifies that the production of gypsum fibre boards is environmentally friendly and has a minimal impact on the environment.

Gypsum fibre boards have received European Technical Approval (ETA) 07-0086 from the German Institute for Construction Engineering (Deutsches Institut für Bautechnik). It regulates the excellent mechanical properties of the gypsum fibre boards and is the basis for the structural dimensioning of wooden panels.

**qualityaustria**  
Succeed with Quality

# CERTIFICATE

This **qualityaustria** certificate confirms the application and further development of an effective

**Quality Austria - Trainings, Zertifizierungs und Begutachtungs GmbH** awards this **qualityaustria** certificate to the following organisation:

**Knauf Bulgaria EOOD**  
BG-1618 Sofia, Angelov vrah 27

**Sites:**  
Sofia - headquarters  
Vidin - plant for gypsum fibreboards  
Maritza - plant for gypsum plasterboards, Metal profiles and Cleanco acoustic boards

**QUALITY MANAGEMENT SYSTEM**  
complying with the requirements of standard **ISO 9001:2015**

Registration No.: 05662/0  
Date of initial issue: 12 July 2006  
Valid until: 15 August 2020

Vienna, 16 August 2017

The validity of the **qualityaustria** certificate will be maintained by annual surveillance audits and one renewal audit after three years.

**Signatures removed for security reasons**

Konrad Scheiber  
General Manager

Dr. Mag. Anni Koubek  
Specialist representative

The current validity of the certificate is documented exclusively on the Internet under <http://www.qualityaustria.com/en/cert> EAC: 16

**IBR**  
Institut für **Baubiologie** Rosenheim GmbH

## Verleihungs-Urkunde

Aufgrund der guten Prüfergebnisse wird der Firma

**KNAUF**  
A-1050 Wien

für das Produkt  
**Vidwall**  
(Gipsfaserplatten, 3018 x 1984)

das Prüfriegel

durch das Institut für Baubiologie Rosenheim GmbH verliehen.

Reimut Hentschel, Geschäftsführer  
Rosenheim, April 2018

Das Prüfriegel wird für die Dauer von 2 Jahren verliehen. Die Nachprüfung für die Produkte muss rechtzeitig vor Ablauf im Hause des Verleiheren erfolgen und ist von Antragssteller zu beauftragen.

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**Deutsches Institut für Bautechnik** **DIBt** **Member of ETA**

Approved body for construction products and types of assessment  
Responsible Person:  
An institution established by the Federal and Länder Governments

**European Technical Assessment** **ETA-07/0086**  
of 23 March 2018

English translation prepared by DIBt - Original version in German language

**General Part**

**Technical Assessment Body issuing the European Technical Assessment:** Deutsches Institut für Bautechnik

**Trade name of the construction product:** KNAUF Gypsum plasterboards Vidwall and Vidwall HI

**Product family to which the construction product belongs:** Gypsum fibre boards for paneling and lining of building components

**Manufacturer:** KNAUF Bulgaria EOOD  
Angelov Vrah 27  
1618 SOFIA,  
BULGARIEN

**Manufacturing plant:** Knauf Bulgaria EOOD  
Vrah Vidin  
BULGARIEN

This European Technical Assessment contains:  
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:  
This version replaces: ETA-07/0086 issued on 26 June 2013

8 pages including 2 annexes which form an integral part of this assessment  
EAD 07/008-09-08/04

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2/16/18 626 04 01/17

**ENVIRONMENTAL PRODUCT DECLARATION**  
as per ISO 14025 and EN 15804

Owner of this Declaration: Knauf Bulgaria EOOD  
Programme holder: Institut Bauren und Umwelt e.V. (IBU)  
Publisher: Institut Bauren und Umwelt e.V. (IBU)  
Declaration number: EPD-ANB-201300084AC1EN  
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Valid to: 28.04.2018

**Gypsum fibreboards**  
**Knauf Bulgaria**

[www.knaufbulgaria.com](http://www.knaufbulgaria.com)

**Institut Bauren und Umwelt e.V.**

# THE GYPSUM FIBRE BOARD BUILDING MATERIAL

Knauf gypsum fibre boards are made of high-quality baked gypsum and cellulose fibres from selected old paper that are mixed in a homogeneous mixture. Gypsum fibre boards have high density and strength, which makes them suitable for high-quality solutions in all areas of drywalling such as:

- > External and internal walls in residential and public buildings
- > Dry floors
- > Wooden construction
- > Systems for fire protection and acoustic insulation in buildings with a high concentration of people

## Benefits of Gypsum Fibre Boards:

- > Homogeneous
- > With high strength in both directions
- > With high density from 1100 to 1400 kg/m<sup>3</sup>
- > Non-combustible A1 or A2-s1, d0
- > Special Systems

## Knauf Gypsum fireboards. A wide range of applications



Schools  
High resistance to scratching of walls due to high surface hardness.



Hospitals  
High mechanical strength of the walls.



Hotels  
Walls with high sound insulation – dry screed floor to reduce impact noise.



Residential buildings  
High resistance and loading capacity.  
Dry screed floors for acoustic comfort.



Industrial buildings, warehouses, sports halls  
Impact resistance. Fire protection of metal constructions

## Benefits of Gypsum:

- > Microclimat regulator
- > Water vapour permeable
- > pH - neutral
- > Economical
- > Non-combustible material
- > No smell or poisonous gases



# VIDIN TYPES OF GYPSUM FIBRE BOARDS

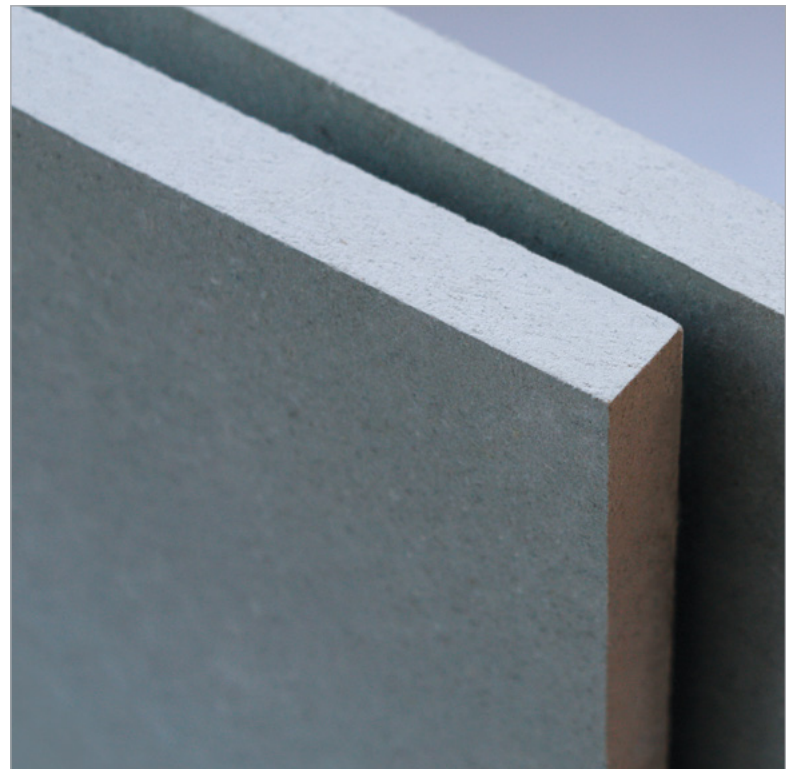
## Boards for Walls

### Vidiwall

Standard gypsum fibre board for walls.

Thickness	10/ 12,5/ 15/ 18 mm
Width	1000/ 1200/ 1245/ 1250 mm
Length	1500/ 2000 - 3000 mm
Edge	SK/ VT/ VTF/ FK

For more information, please check technical datasheet K 811



### Vidifire A1

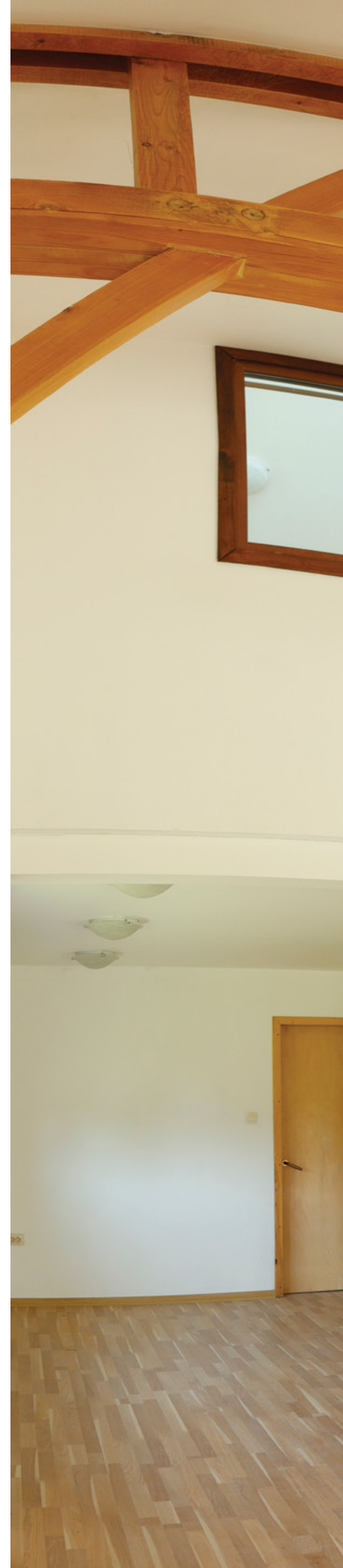
The gypsum fibre board for the highest fire resistance

Thickness	12,5/ 15 mm
Width	1200/ 1250 mm
Length	2000 - 3000 mm
Edge	SK/ VT

For more information, please check technical datasheet K 813



Characteristic strength values for boards with thickness 10.0 mm, 12.5 mm, 15.0 mm, 18.0 mm		
Perpendicular to the plane of the board:		
Bending perpendicular to the plane of the board	$f_{m,k}$	4,5
Shear perpendicular to the plane of the board	$f_{v,k}$	1,4
In the plane of the board:		
Tension in the plane of the board	$f_{t,k}$	2,3
Compression in plane of the board	$f_{c,k}$	7,5
Shear in plane of the board	$f_{v,k}$	3,5
Stiffness values		
Perpendicular to the plane of the board:		
Modulus of elasticity	$E_{m,mean}$	3900
Shear modulus	$G_{mean}$	1300
In the plane of the board:		
Module of elasticity, bending, tension, compression	$E_{m,t,c,mean}$	3900
Shear modulus	$G_{mean}$	1750
Density characteristics ( $kg/m^3$ )		
Density	$\rho$	1100 - 1400
Dimensional stability		
Length, width		+0/-2 mm
Difference of diagonals		< 2 mm
Thickness 10 / 12,5 / 15 / 18		+ 0.2/ -1 mm
Technical data		
Water vapour diffusion resistance $\mu$		21
Thermal conductivity coefficient $\lambda$		0,30 W/mK
Specific heat capacity		ca. 1,1 KJ/kgK
Thermal expansion coefficient		0,001 %/K
Brinel hardness		20-30 N/mm <sup>2</sup>
Impact resistance	IR	11 mm/mm
Humidity content (20°C/65 %)		0,9 -1,3 %
Contracting and drying at relative humidity 30 % (20°C)		0,30 mm/m
Reaction to fire acc.to EN 13501 - 1		A2 - s1 d0 (non-combustible)
pH - value		7 - 8





Single-family residential building with timber structure and Vidiwall boards

# STORAGE AND APPLICATION

## Storage

Gypsum fibre boards should be stored in horizontal position on wooden pallets or strips of boards in dry, moisture-protected rooms.

## Cutting out

The gypsum fibre boards with a thickness of up to 12.5 mm are cut with a scraper blade and bent over the edge of the rack.

The broken edge can be aligned with a front grate and cleaned from dust (especially when applied with an open or glued joint). Clean edges can be achieved with an electric saw (use aspiration).

## Fixing

Gypsum fibre boards are fixed to metal frame by means of screws and to timber frame by means of screws, nails or staples (DIN 1052), galvanized or with another anti-corrosion coating.

It is possible to fix the second layer to the first one by means of staples

The boards are fixed to metal or timber structure by means of screws (DIN 1052/ EN 14566).

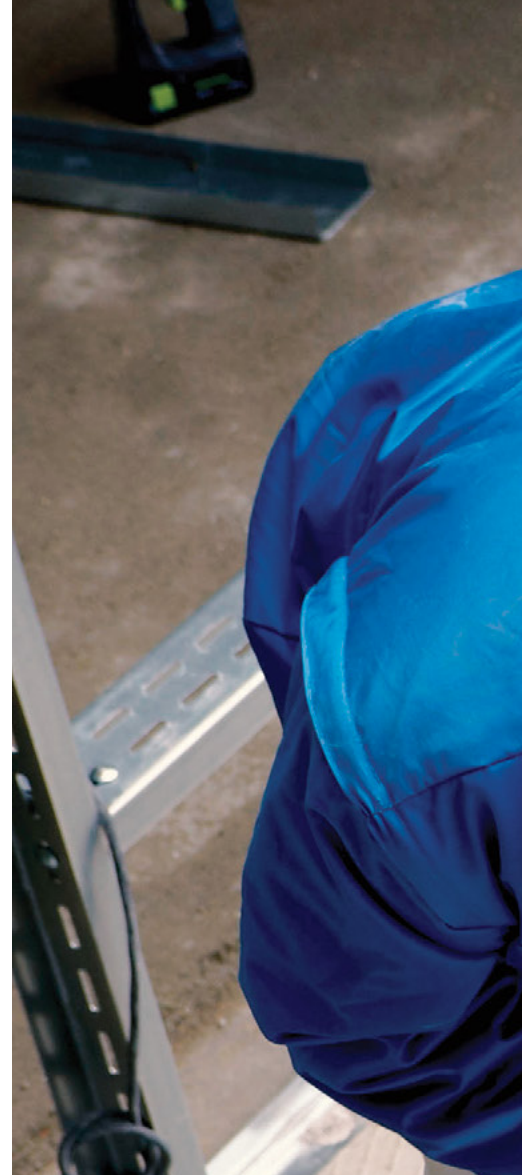
## Jointing und surface treatment

### VT edge – board width 1200, 1250 mm

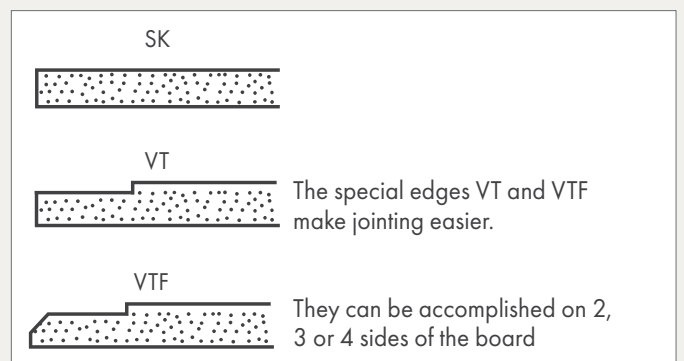
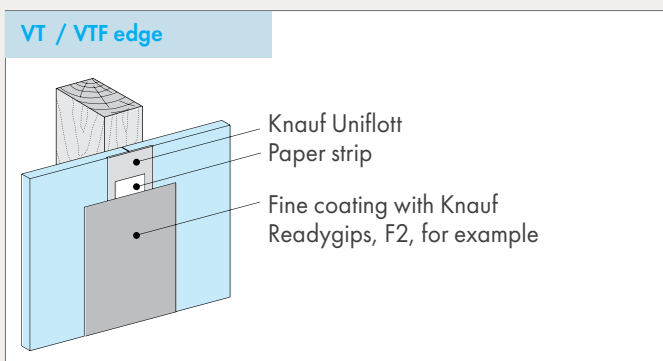
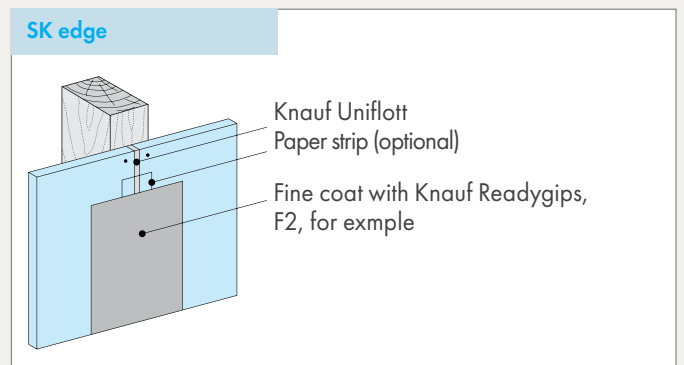
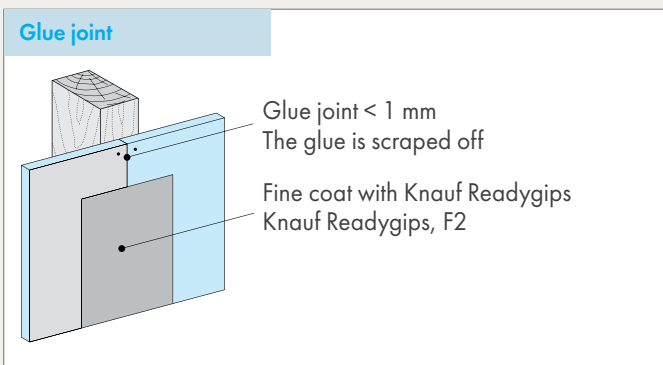
The VT edge is a tapered edge with recess of 1.5 mm. Thus the joint tape can be inserted seamlessly. Fix boards butt-jointed, fill VT edge with Uniflott, insert joint tape and press with slight pressure, after approx. 4 hours coat with Knauf Uniflott. For multi-layer cladding, fill the joints of the lower layer, fill and grout the joints of the outer layer. Once dry, sand to even surface. Cover the fasteners as well.

### VTF edge

VTF is the upgrade of VT edge. The additional chamfer makes the joint stronger due to the bigger contact surface between the board and the joint filler.



## Versions for edging the edges





### SK edge – open joint – board width 1195, 1245 mm

Align the boards on a 5-7 mm joint and fill the joint completely with Uniflott. Scrape the excess after approx. 40 minutes. Apply Uniflott with trowel or wide steel scraper and embed joint tape into it.

### SK edge – glued joint – board width 1199, 1249 mm

Using a suitable gun, apply a continuous bead of Knauf Vidiwall Joint Adhesive to the adjacent edge of the fixed board. Align the next board and push it firmly into the bed of adhesive (joint width <1 mm) and fix it with screws or staples. Scrape off the excess Knauf Vidiwall Joint Adhesive within one hour with a steel scraper.

When should the joint-filling be carried out?

- › When no significant changes in the length of the gypsum fiber boards are expected (eg due to changes in humidity or temperature)
- › The air humidity is between 40 and 75%
- › The room and surface temperature is not less than 10°C
- › All statically relevant weights must be introduced before joint-filling z. B. underlay floors, roofing, green roofs etc.

### Fine coating / Finish

Before applying the fine coating, prime the entire surface with Knauf Tiefengrund. Knauf Readygips or Finish Paste F2 is recommended for high surface requirements (surface classes Q1 - Q4).

# INTERNAL PARTITION WALLS

## Benefits:

Internal walls with gypsum fibre boards have all the advantages of drywalling: quick and easy installation, low weight, low thickness. They are distinguished from other drywall systems with their complex high building and physical parameters:


- › Combination of high physical properties
- › Excellent sound insulation
- › Impact resistance

- › High fire resistance
- › Tested wall heights
- › Optimum parameters with hybrid cladding of gypsum fibre board and gypsum board

## Certificates:


- › Fire resistance tested acc. to EN 1363-1 and 1364-1; classified acc. to EN 13501-2
- › Sound insulation acc. to ISO 140-1, EN 20140-3 und EN ISO 717-1
- › General Building and Supervision Statement (Allgemeines bauaufsichtliches Prüfzeugnis) P-1100/166/15-MPA BS on Resistance to Mechanical Deformations acc. to DIN 4103-1.

## Walls with single metal stud frame and single layer cladding

Knauf system W361	Cladding	Profile	Wall thickness (mm)	Insul. layer (mm)	Sound reduction Rw (dB)	Fire protection
	12,5 mm Vidiwall	CW50	75	50	49	EI 30 EI 60
		CW75	100	75	52	
		CW100	125	100	53	
	12,5 mm Vidiphonic	CW75	100	60	55	
	18 mm Vidifire A1	CW100	125	100		EI 120



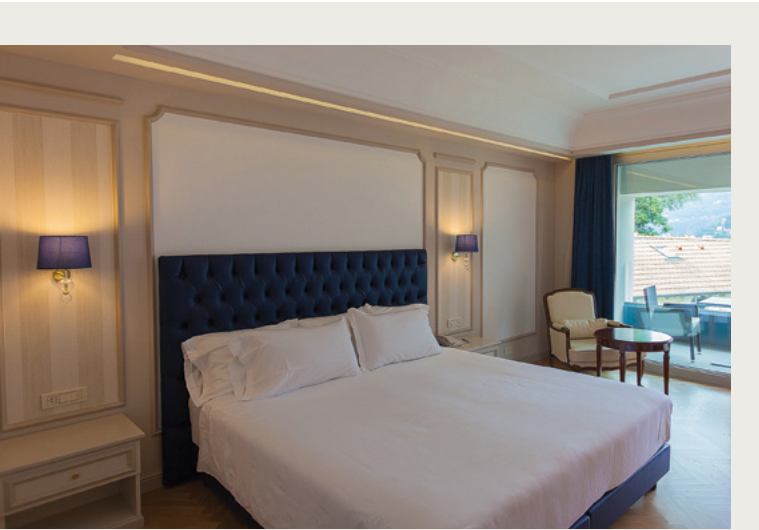
## Walls with single metal stud frame and double layer cladding

Knauf system W362	Cladding	Profile	Wall thickness (mm)	Insul. layer (mm)	Sound reduction Rw (dB)	Fire protection
	2x12,5 mm Vidiwall	CW50	100	40	61	EI 90 EI 120
		CW75	125	60	61	
		CW100	150	80	62	
	2x12,5 mm Vidiphonic	CW75	125	60	63	



Detailed information about the tested internal partition walls with gypsum fibre can be found in a technical leaflet W36

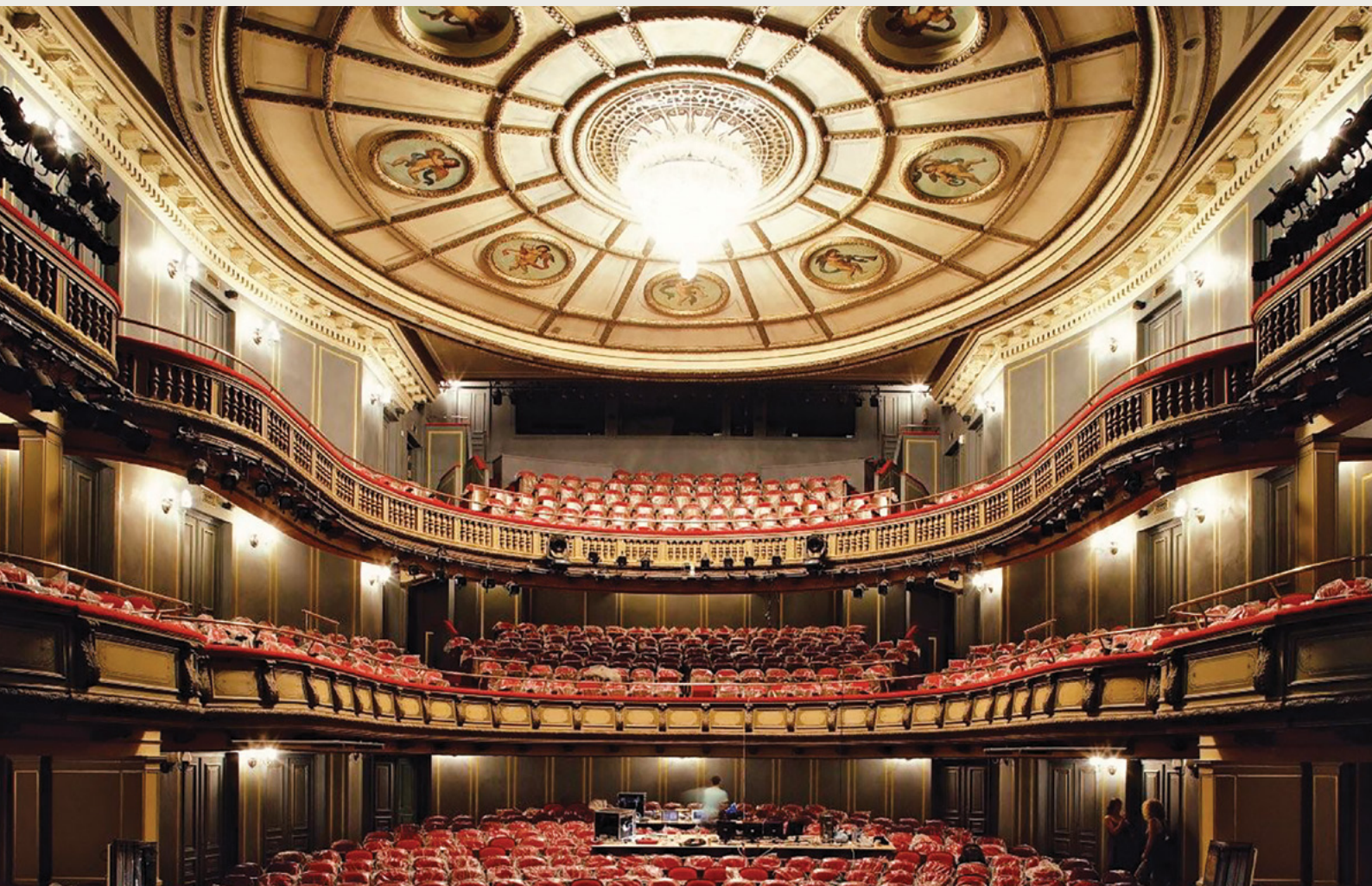
Reference Sites:



Hotel Imperiale, Como - walls between rooms with double stud and GKB+Vidiwall cladding




Residential building Foro Buonaparte, Milan - walls and shaftwalls with GKB+Vidiwall cladding



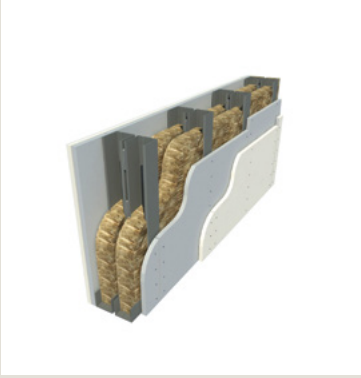
National theatre in Athens – partition walls and suspended ceilings with Vidiwall boards

### Walls with single metal stud frame and double layer cladding of gypsum fibre board and gypsum boards

Knauf system W312 и W322	Cladding	Profile	Thickness (mm)	Insul. layer (mm)	Sound reduction Rw (dB)	Fire protection
	12,5 mm Vidiwall + 12,5 mm board type A	CW75	125	70	58	EI 90 <sup>1)</sup>
		CW100	150		59	EI 120 <sup>2)</sup>
	12,5 mm Vidiwall + 15 mm board type F	CW75	130	70		EI 120
	12,5 mm Vidiphonic + 12,5 mm board type F	CW75	125	60	63	



### Walls with a double metal stud frame

Knauf system W315 и W365	Cladding	Profile	Thickness (mm)	Insul. layer (mm)	Sound reduction Rw (dB)	Fire protection
	12,5 mm Vidifire A1	2xCW75	181	60		EI 60
	2x12,5 mm Vidiwall	2xCW50	155	50	67	EI 90
	2x12,5 mm Vidiwall	2xCW75	205	50	68	
	2x12,5 mm Vidiwall	2xCW100	255	50	69	
	12,5 mm Vidiwall + 12,5 mm board type F	2xCW50	155	2x50	62	
	12,5 mm Vidiphonic + 12,5 mm board type A	2xCW75	203	2x60	68	
	12,5 mm Vidiphonic + 12,5 mm board type F	2xCW75	203	2x60	71	
	2x12,5 mm Vidiphonic	2xCW75	203	2x60	71	









### Reference Sites:

Club house Tegoni, Siena - walls between rooms with double stud and GKB+Vidiwall cladding



## Cantilever loads table (points)

Board thickness	1-nail hook (kg) 	2-nails hook (kg) 	3-nails hook (kg) 	Plastic pin Fischer UK 8x50 R (kg) 	Metal Pin Fischer UK 8x50 R (kg) 	Knauf Hartmut (kg) 
10 mm	15	25	35	20	25	30
12,5 mm	17	27	37	35	35	45
15 mm	18	28	38	35	40	50
18 mm	20	30	40	45	55	70
2x12,5 mm	20	30	40	55	70	70

## Reference Sites:

Skopje Philharmonic – wall and ceiling cladding with laminated gypsum fibre boards





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