

# KNAUF

# كناوف



11-2014

Drywall Systems

## **BS EN & ASTM** **Installation Base Manual**

Wall Linings

Partition walls

Suspended Ceiling



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## Disclaimer:

The information and drawings are intended for marketing purposes only. For any specific inquiry, Please contact the Technical Department for customized project proposal and load calculation. Data is subject to change without notice based on our continues research and development results. All right reserved. For more info. please visit <http://www.knauf.ae>



## Introduction

The works of vertical internal partitioning and/or wall paneling are to perform within a building the basic functions delimitation of spaces, of appearance, of contribution to thermal insulation, acoustic insulation and fire resistance in case of fire. Their realization must also take into account the dimensions of the surfaces intended to receive them, the type of finish required, and the need to fix equipment above on the surfaces in relation to the intended use of buildings. Since, and this is not the case, the final performance depends mainly on the accuracy of the installation of the components, as well as the quality of the materials used, it is imperative for operators in the construction industry concerned (commissions, contracting authorities, businesses, installers, end-users) to be able to count on precise recommendations that limit the scope for interpretation of the operations to be performed and the solutions to be implemented."



### Integrated, innovative systems

These pages highlight which Knauf Drywall systems are most suited to meet performance criteria and bring a variety of construction and end user benefits to the sector you are designing for.

## Training and on - Site support

The Knauf training support team is available throughout the entire gulf regions to offer their outstanding technical expertise. Whether it is for general technical question & support or even on-site support with the drywall installation, the Knauf training team can support you all the way.

Both practical & theoretical trainings are offered at the Training academy in Dubai. We run courses from the basic level of drywall for those who are new to the world of drywall construction, through to specialized courses with highly technical content for the more experienced technicians.

We encourage our customers to co-ordinate with our training support team throughout the entire development of their projects to ensure that we together are providing the adequate drywall solutions to suit the projects needs, and also that the installation is carried out in the most professional and correct manner.

Our Training support team will frequently visit a project throughout its development and carry out a site inspection along with the relevant and concerned people related to the project. They inspect all aspects of the work already done and also offer support with any pending issue related to any further installation work that is to be carried out. After any site inspection a report is created and issued to all concerned persons to ensure that everyone has the same understanding with any pending issues, this helps ensure that the projects runs smoothly and is delivered on-time.



For further information on Training or on-site support:  
Please contact the Knauf Training Team at [info@knauf.ae](mailto:info@knauf.ae)

### Knauf Plasterboards

Knauf Plasterboards contain a core layer of plaster, whose surfaces and the longitudinal edges are coated paper. They are manufactured in various types, thicknesses and sizes. The plaster core contains additives, in small percentages, in order to improve the functional performance. Knauf Plasterboards are produced according to the standards required by the Regulations UNI EN 520

### Brand and identification of Plasterboards Knauf

Plasterboards Knauf are marked on the back with a linear marking positioned in the center on the length of the sheet. This inscription identifies the manufacturer, the factory, the production data, the reference standard and quality control.



The dry construction system refers to materials with high standardization that allow a large variability in the phase of design/assembly, so that it can vary the functional performance of the walls depending on the materials chosen. We produce self-supporting and non-bearing walls, high-tech and simple to make, as long as you take care of the detail either in the planning stage or in the stage of construction.

The Knauf walls are composed essentially of:

- Cladding panels of coated plaster

The walls thus constructed are also identified as "light walls", since the specific weight of the "dry system" partition is 8-10 times lower than that of a partition wall in masonry.

One of the biggest advantages of Dry System is that you can vary the stratigraphy of walls, false walls and ceilings in order to satisfy each time, the requirements of the Project.

The plasterboards in turn, differ as indicated in the previous pages in their special qualities of resistance to moisture, fire, etc..

The metal frame is connected to the adjacent carrier elements and can be single or double. The fittings can be arranged in double series in parallel, adjacent or spaced, separate or connected with strips of the panels properly placed and secured.

- 1) Knauf CW profile metal thickness 0.6 mm, flange 35 mm
- 2) Maximum heights calculated based on a limiting deflection  $L/240$  on 200 Pa
- 3) Sound calculation base on ISO 140
- 4) Glass wool insulation, 16 Kg/m<sup>3</sup>
- 5) Fire rating according to BS-EN 476, part 4 & BS EN 1364-1

For wet areas, we recommend the use of Moisture Resistant Board. Replacing the Regular Board with Moisture Resistant Board, or replacing the Fire Resistant Board with Fire and Moisture Resistant Board will have no influence on system's parameters. Other systems are also available. Should your requirements fall outside the above stated systems, please contact Knauf Technical Department at Landline +971 4 337 7170

## Profiles overview

The KNAUF profiles are produced with steel conforming to European standard EN 10346:2009

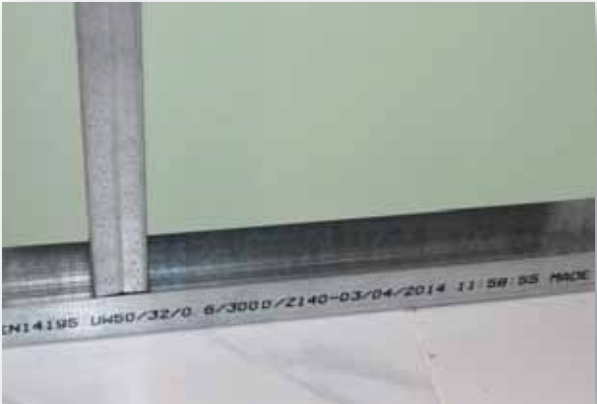
The zinc coating conforms to UNI 5753-84 standard for the initial smelting, with Zn 98% quality (UNI 2013). All surfaces of the profiles are protected by chromic acid chemical passivation, oiling in profiling, and resistance to salt spray 72 hours.

KNAUF profiles are manufactured according to the standards specified in EN 14195, thickness of steel 0.5-0.6 mm with controlled tolerances.

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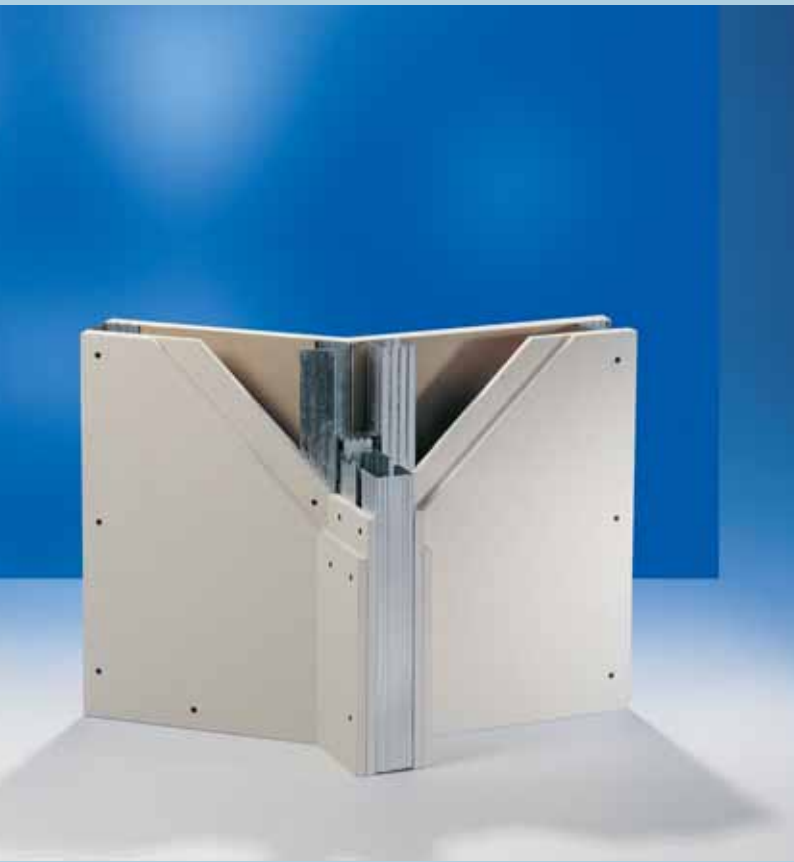
### Trademarks and identification of Knauf Profiles

KNAUF profiles are marked on the flange with a print that identifies the manufacturer, the enterprise, product information, the reference standard both for manufacture of the fittings or for the compliance of the raw material, quality control.



The strong integration engineering, the abiding presence of cavities allows a high flexibility for the passage of electrical plumbing and sanitary devices. One can also hang on the finished walls the loads of various weight and distribution, from simple framework of the mounted kitchen to the shelves of shops and warehouses. To achieve the maximum filling of the wall with equipment, you should only refer to the instructions given in the technical sheets of Knauf, which indicate all applicable loads depending on the fastening system.



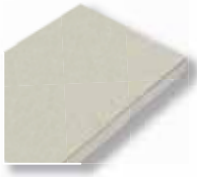


EN-BS  
Gypsum Board Types

1.0

## EN-BS Gypsum boards

### 1.1 Regular Gypsum board (RG)



The panels coated with plaster are used in all types Of buildings for interior finishing.

Application field: paneling of walls, false ceilings or directly to blockwork, by the use of suitable adhesive based plaster (Perfix).

Thickness: 9.5 mm, 12.5 mm, 15 mm

Paper color: Ivory

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### 1.2 Fire Rated (FR) Gypsum board



Fire-resistant panels with plaster coating are further reinforced with mineral fibers within the core of plaster to improve the structural strength under the action of fire.

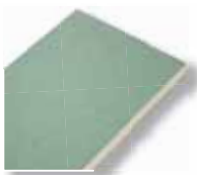
Application field: the same as for the RG panels, but with high fire resistance performance.

Thickness: 12.5 mm, 15 mm

Paper color: Pink

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### 1.3 Moisture Resistant (MR) Gypsum board H1 & H2



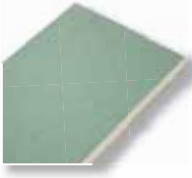
Moisture Resistant plasterboards with reinforced plaster coating specially processed to limit the absorption of moisture.

Application field: the same as for RG panels, but designed for environments with high humidity such as bathrooms and kitchens.

Thickness: 12.5 mm, 15 mm

Paper color: Green

#### 1.4 Fire & Moisture (FM) Resistant Gypsum board



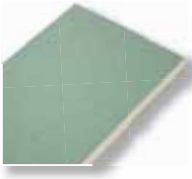
Plasterboard with fire-resistant performance, and also subjected to special process to limit the absorption of moisture.

Application field: wall paneling and false ceilings, the same as for the MR panels, but are to be applied in humid environments like bathrooms and kitchens.

Thickness: 12.5 mm, 15 mm

Paper color: Green

#### 1.5 Knauf Coreboard



Knauf Coreboards (FM) are gypsum wallboards developed specifically to be used in conjunction with Knauf Shaftwall systems where access from one side is restricted, giving a high fire performance whilst being simple to construct.

Knauf Coreboards are used as liner boards facing the shaft of Knauf's Fire Rated Shaftwall systems. Class A2-s1,d0 (B) According to DIN EN 13501-1

Application field: Fire resistant gypsum boards are just part of a complete fire rated assembly. To achieve a certain fire rating on a Knauf drywall assembly, the complete system component has to be installed according to Knauf's installation guidelines.

Thickness: 25 mm

Paper color: Green

#### 1.6 Aquapanel®



Fiber-reinforced concrete panel with reinforcing mesh on the two surfaces, reaction to fire class A1.

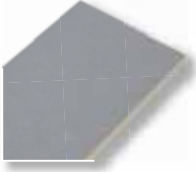
Application: suitable for indoor high and / or aggressive indoor and outdoor humidity.

Thickness: 12.5 mm

Indoor/Outdoor

## Gypsum Boards Special order

### 1.7 Diamant Impact Resistant Gypsum Board



Knauf Diamant is an impact resistant gypsum board offering toughness, durability and excellent load carrying capacity

Application field: Knauf Diamant are used in all fields of interior works as cladding of premium drywall systems with enhanced requirements for sound insulation and fire protection, and in case of special requirements on mechanical resistance, in rooms with moderately high humidity.

Thickness: 12.5 mm, 15 mm

Paper color: Blue

### 1.8 Knauf Fireboard

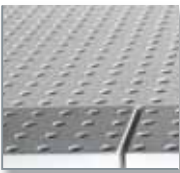


Knauf Fireboard gypsum boards are used in drywall systems that provide particularly optimized fire protection.

Application field: Application should be acc. to the applicable standards and acc. to the Knauf System Data Sheets of the respective drywall system.

Thickness: 12.5 mm, 15 mm, 25 mm

### 1.9 Knauf Cleaneo



Panel on whose surfaces have been performed in the factory drilling and milling and coupling on the back of felt soundproofing.

Class A2-s1, d0 fire reaction.

Application field: coating of walls and ceilings with high sound absorption performance and high aesthetic and design.

Thickness: 12.5 mm

### 1.10 Safeboard panels

Knauf Safeboard panels are FR panel complying the standards EN 520 and DIN 18180 with additional capacity of shielding against radiation.



Application: suitable to create protective walls in medical clinics / hospitals where X-ray is used.

Thickness: 12.5 mm

### 1.11 Silentboard panels

Knauf FR Silentboard panels are FR panels coated according Plasterboards standards DIN 18180 and DF in conformity with regulations UNI EN 520 that thanks to the innovative and exclusive core of modified plasters have a high sound insulation. Application: especially suitable use for walls, false ceilings and ceilings: hotels, meeting rooms, recording studios, radio studios, Zencapsulation industrial machines (low frequencies).





Thickness: 12.5 mm

### 1.12 Vidiwall® panels

The panel of fiber board Knauf Vidiwall® is extremely durable and is able to withstand the most challenging mechanical stresses and endures the highest loads. Applications: Schools, Hospitals, Hotels, Residential, Hangars, Warehouses, Gyms



Thickness: 10 mm, 12.5 mm, 15 mm

Type of edge - form	Description
	Tapered edge
	Square edge



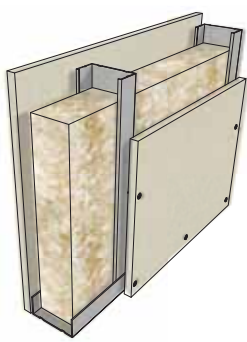


System Overview (Details)

2.0

# System Overviews Knauf Drywall Systems

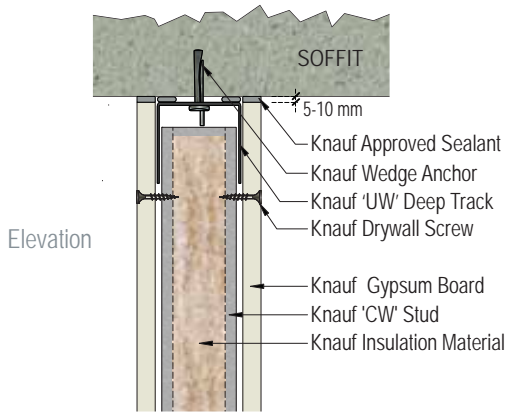
## KW B111



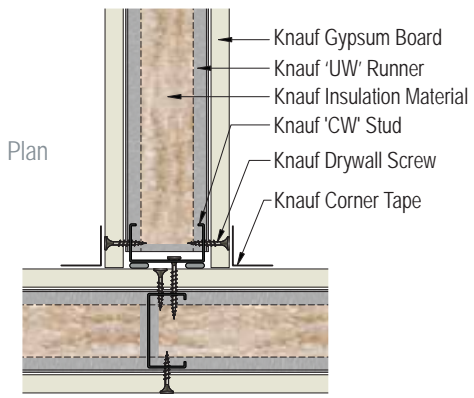
### Description:

- Economical solution
- Fast space division

Sound Reduction (RW)	38 - 49 db
Partition Width	75 - 176 mm
Height	Up to 8.05 m



KW B111 Ceiling connection,  
up to 10 mm deflection



KW B111 T-Junction