

# KNAUF ACOUSTICLINE

ACOUSTIC SYSTEM



# SURFACE COATING EXPERTISE

KNAUF DESIGN is well known for its groundbreaking and creative ideas for surface finishing of a wide range of materials.

We specialize in wall and ceiling claddings for largely design-oriented room concepts and spaces such as offices, airport terminals, concert halls and performing arts spaces, sport halls, shopping malls, transportation hubs, schools, colleges and universities and many more.

Our products prove themselves wherever uncompromising functionality, perfect acoustics, high-end aesthetics, consistent appearance and installation systems are required.

As a long-standing partner for construction industry professionals such as architects, interior designers, contractors, stakeholders and consultants, Knauf Design is a reliable system supplier. We ensure maximum safety with regard to required quality, approval and feasibility.

DESIGN. FUNCTION. QUALITY. FREEDOM.

IN HARMONY WITH ACOUSTICS –  
PERFECT SOUND  
FOR OUTSTANDING SPACES

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# KNAUF ACOUSTICLINE



Nano-perforation (N)  
Details from page 6



Micro-perforation (M)  
Details from page 8



Straight Slot (S)  
Details from page 10



Straight round perforation (R)  
Details from page 12

## ACOUSTICLINE EXCITING DESIGN PERFECT SOUND

Whether it is a concert hall, a classroom or a gym, each space is used differently, and has specific acoustics requirements. As part of the Knauf Group, we combine many years of experience in the production of highly compressed and non-combustible gypsum fiber boards with innovative surface finishing. The result is presented in the finished wall and ceiling panels that offer unprecedented creative freedom, and at the same time ensure

first-class acoustics regardless of whether the sound should be reflected or absorbed. Thanks to its excellent acoustic performance, DESIGNBOARD 230 is ideal as a classic broadband absorber. Finished gypsum fibre boards can be also processed acoustically if required. Starting with hole punching, through slotting to individual processing using a special CNC programme.

Drywall systems from Knauf Design, classified and approved according to DIN EN 13501, fully comply with legal requirements. Designboard provides an exciting aesthetic appearance, perfect sound and fire safety. In addition, gypsum fibre board ensures a good indoor climate, it repeatedly falls below the formaldehyde limit values.

### CHARACTERISTICS



Product line	LAMINATE	WOOD	PAINT	CREATIVE
Surfaces	Laminate (HPL)	Real wood veneer	Varnish	Décor printing
Acoustic options	R, S, M, N	R, S, M, N	R, S, M	R, S, M
Standard formats	3030 x 1200 mm	3100 x 1260 mm		
	2560 x 1200 mm	2560 x 1260 mm		
Thickness	18 mm			
Reverse side	Factory acoustic fleece lamination			
Building material classification	A2-s1, d0 according to DIN EN13501-1 (non-combustible)			
Conformities (on request)	VOC regulation, AgBB, EMICODE, Blue Angel, BREEAM, LEED			
Areas of application	Open-spaces, conference and lecture halls, schools, sports and concert halls, restaurants			



- › Proven effective air cleaning effect
- › Healthy and pleasant indoor climate thanks to large-format panels



- › No outgassing
- › Ecological advantage over e.g. wood-based panels  
(Gypsum fiber is environmentally friendly and non-combustible substance)



- › Numerous design options



# NANO-PERFORATION

$\alpha_w = 0,60 - 0,90(LM)$

Sound absorption  
class C / B / A

**Norm:**  
**DIN EN ISO 11654**  
**0,5 / 3,4-1 N**

Perforation type

**5,77 %**

Ratio of perforation

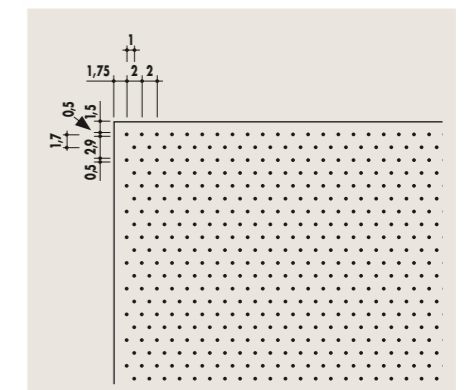
**Surface**

Wood - (veneer)  
Laminate - (HPL)



SOUND ABSORPTION CLASS

BOARD DESIGN / PERFORATION EXAMPLE



Knauf Design along with Acoustic Line sets new standards together with the Knauf Designboard in the sound absorption class A.

Due to the barely visible perforation of the surface design, the nano-perforation looks very discreet with maximum effect on acoustics and sound absorption.

This allows countless design options in terms of surface and overall visual appearance, and the sound absorber optically fades into the background.

Configurable top acoustics bring out the best in every room, especially where a consistent look is required.



# MICRO-PERFORATION

$\alpha_w = 0,55(H) - 0,80$

Sound absorption  
class D / C / B

**Norm:**  
**DIN EN ISO 11654**  
**8/16 R**

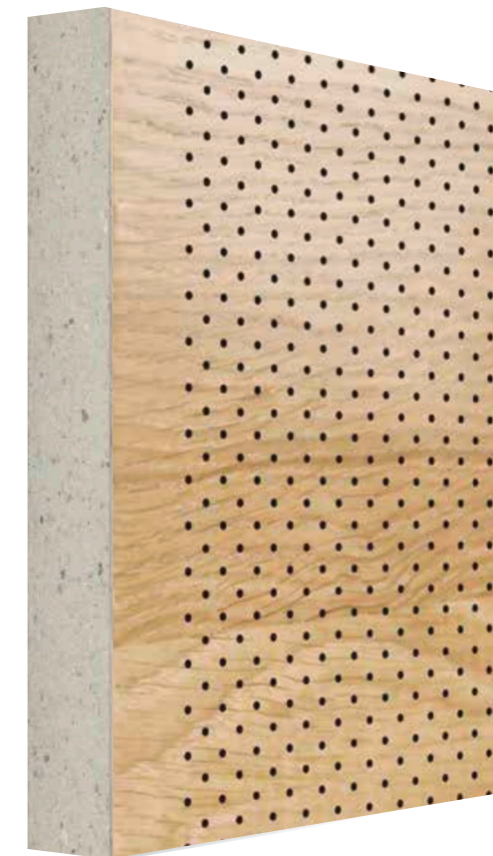
Perforation type

**19,2 %**

Ratio of perforation

**Oberfläche /**  
**Surface**

Paint - (coating)  
Creative - (print decor)  
Wood - (veneer)  
Laminate - (HPL)



B

SOUND ABSORPTION CLASS

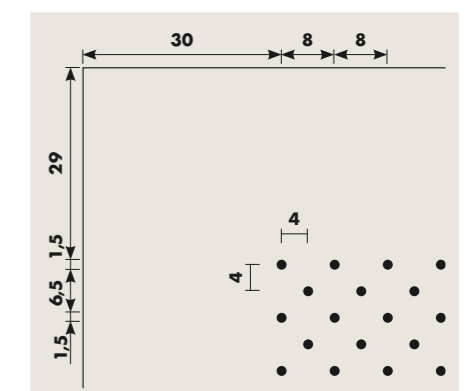
Acoustic Line with a micro-perforation pattern meets strict acoustic requirements, and impresses with its sophisticated appearance.

The micro-perforated Designboard meets the best acoustic conditions without restricting creative freedom.

Moreover, the test results are convincing: Knauf Designboard offers a high level of sound absorption through micro-perforation.

Strong aesthetics that fulfills its function is for demanding designers and building owners.

BOARD DESIGN / PERFORATION EXAMPLE



# STRAIGHT SLOTTING

$\alpha_w = 0,45(MH) - 0,8$

Sound absorption  
class D / C / B

Norm:  
DIN EN ISO 11654  
3/16 S

Perforation type

18,8 %

Ratio of perforation

Oberfläche /  
Surface

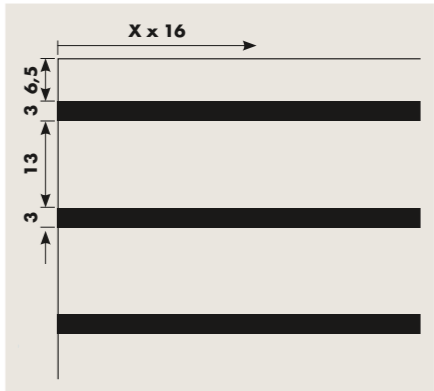
Paint - (coating)  
Creative - (print decor)  
Wood - (veneer)  
Laminate - (HPL)



B

SOUND ABSORPTION CLASS

BOARD DESIGN / PERFORATION EXAMPLE

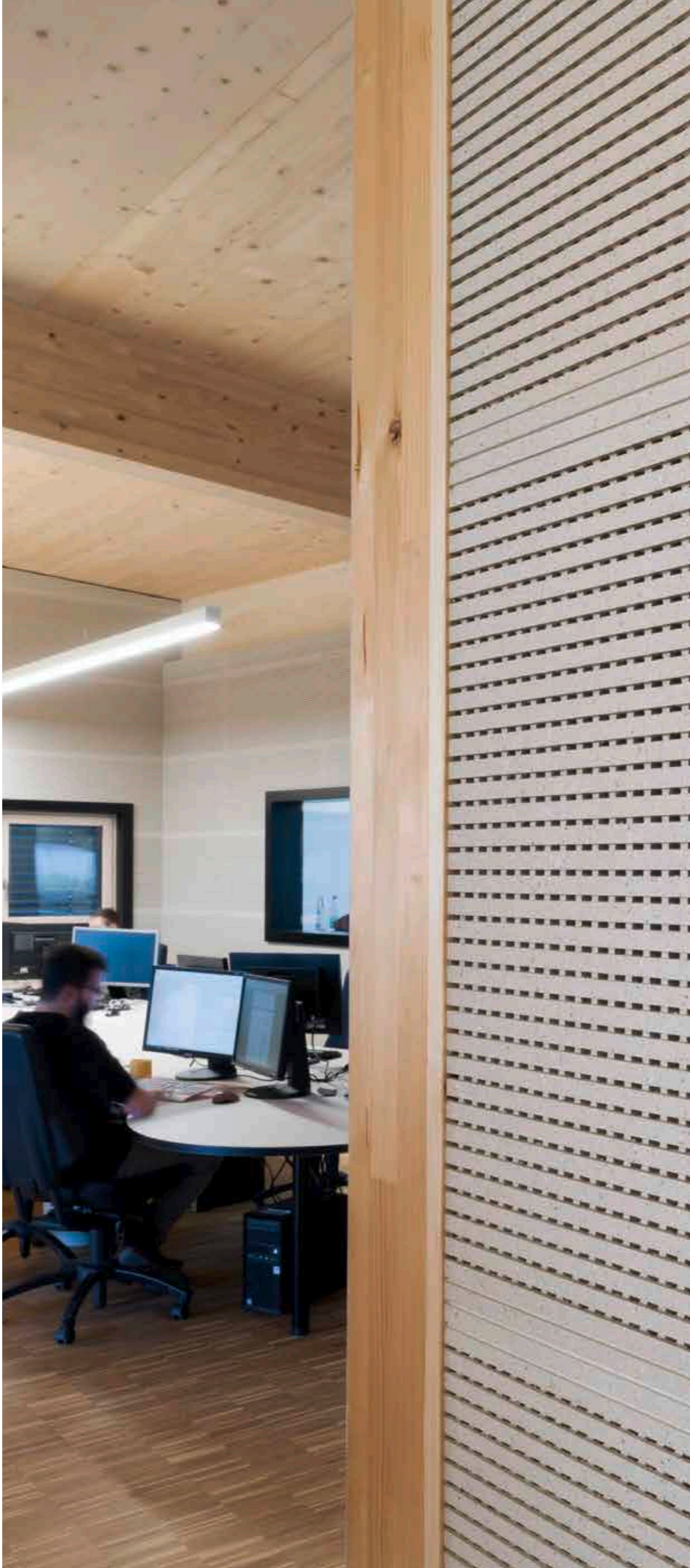


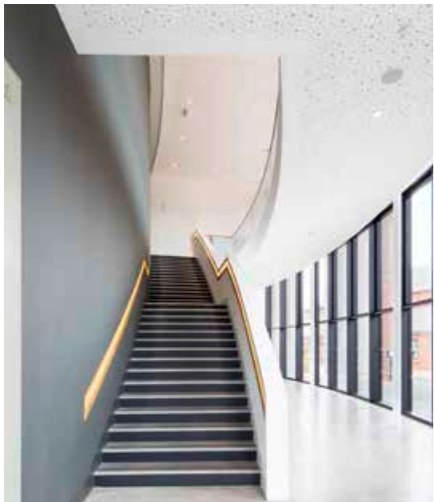
If you prefer an elegant and straightforward look for your space, we recommend choosing a Designboard with straight slots. It impresses with its noticeably good sound and decisive modern appearance.

Thanks to straight slots, the acoustic and optical highlights can be equally set. Gypsum fibre board offers many tremendous design

possibilities such as natural surface, a large number of HPL finishes or natural wood veneer.

They are literally endless due to the ability to print directly onto the Designboard: whether it is a decor or an individual motive - your creativity will find no limits with the Knauf Designboard.





# STRAIGHT ROUND PERFORATION

$\alpha_w = 0,55(H) - 0,80$

Sound absorption  
class D / C / B

Norm:  
DIN EN ISO 11654  
8/16 R

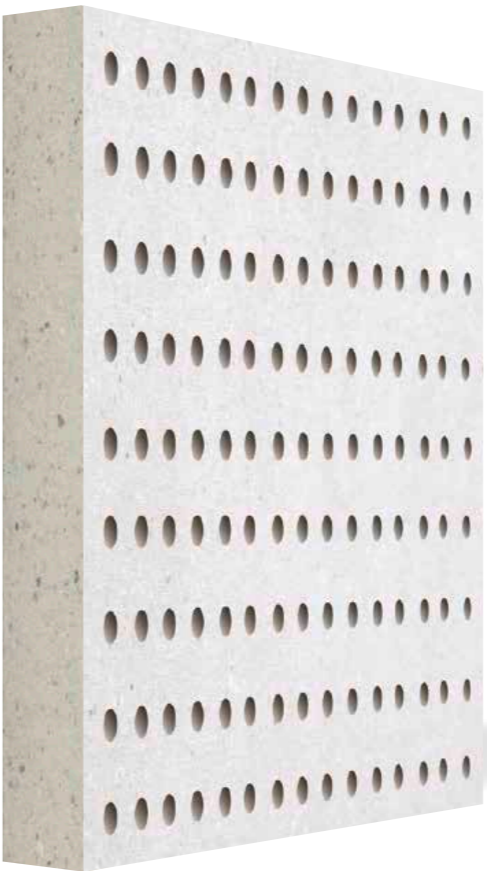
Perforation type

19,2 %

Ratio of perforation

Oberfläche /  
Surface

Paint - (coating)  
Creative - (print decor)  
Wood - (veneer)  
Laminate - (HPL)



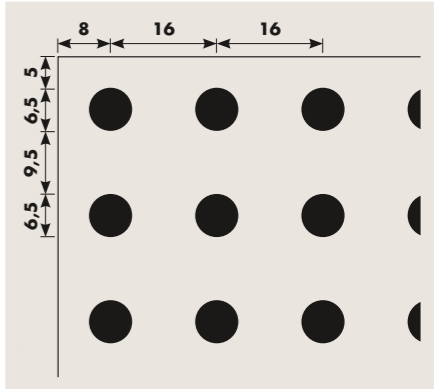
B

SOUND ABSORPTION CLASS

Straight round perforation is in demand not only for acoustics, but also aesthetics and catching dynamic design are important. Round perforation is available in a wide variety of patterns, and gives a specific look.

Regardless of whether a sophisticated ceiling design or a specific design for wall panels is required, the Knauf Designboard with round perforation is extremely attractive - both visually and acoustically.

BOARD DESIGN / PERFORATION EXAMPLE



## SURFACES

### WOOD



"Wood" inspires with real wood veneer from our collection or according to individual customer requirements. Surfaces with an uncompromisingly natural look and high aesthetic quality.

### LAMINATE



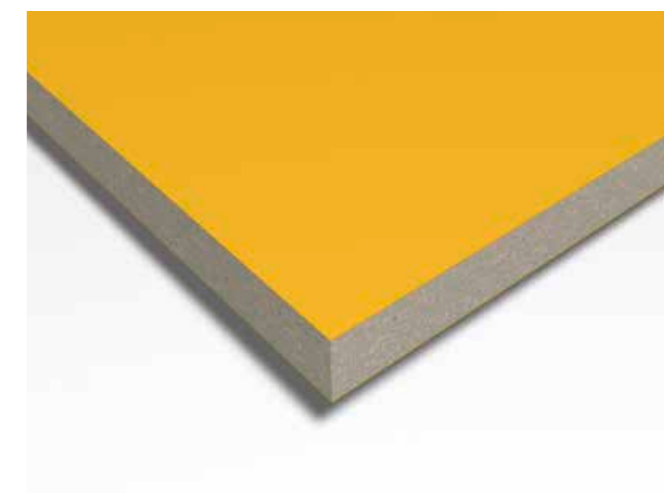
"Laminate" impresses with its durability and extremely easy maintenance. The panels are finished with HPL, and offer a wide range of options - from plain colors to wood, metal and stone decors.

### CREATIVE



"Creative" means digital direct printing. You can easily choose from over 80 design decors or motives of your choice. There are no limits to your creativity: it can be a photography, graphics, color or font - the results are impressive.

### PAINT



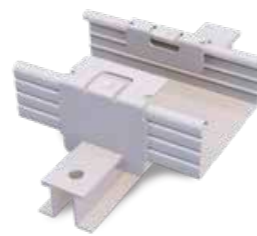
"Paint" offers the highest level of color accuracy and brilliance. Designboards are primed, and then painted with the desired color or optionally transparent, which preserves the natural look of the gypsum fibre board.

# INSTALLATION

## DESIGNBOARD FIX – WALL AND CEILING SYSTEM: SOUND DEADENING, ADJUSTABLE AND TOOL-LESS ASSEMBLY

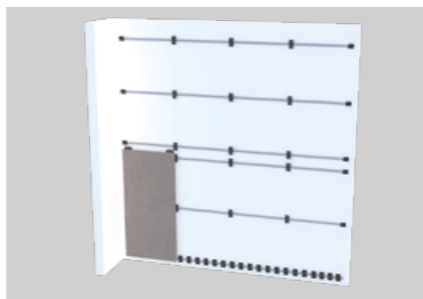
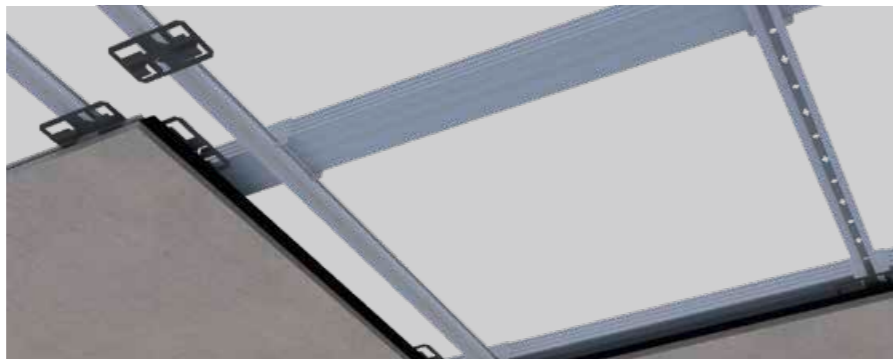
Flawlessly aligned wall and ceiling surfaces require precise assembly. Installation can be done without great effort, without any tools, and additionally you can still adjust it with millimeter precision. DESIGNBOARD FIX is a non-combustible fastening system for

concealed fixing of ceilings and walls. The rotary clips adjustable to the millimeter, can be easily fixed to the DESIGNBOARD FIX rails of the wall or ceiling substructure.

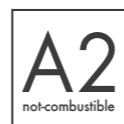
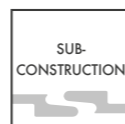


### One system - many options:

- › Applicable to walls and ceilings
- › Fire classification according to EN 13501-1
- › Non-combustible A2-s1, d0
- › Joint formation 0 - 20 mm, with Fire Safety Classification A2 as per composite requirement 0 - 10mm
- › Substructure pre-assembly possible
- › Can be installed without tools
- › Can be dismantled with 8 mm hang-out clearance, revisable
- › Adjustable, can meet building tolerances
- › Sound deadening



Watch video for assembly



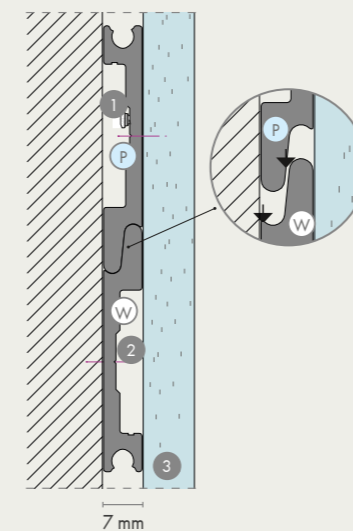
## ALTERNATIVE FOR HEAVY PANELS: SPLIT BATTEN SYSTEM FOR WALLS

If you need to install to the wall particular heavy or large panels with a minimum width of 650 mm or more, the split batten system with a construction height of 7 mm will be a good alternative. It is a smart system, with which you can clad walls easily and safely.

Split batten system consists of aluminum split battens and corresponding screws. The split battens should be mounted on the wall and the board, and then to be fastened together. This system is applicable for either horizontal or vertical installation.



### Cross-section



### Components

- P**  
Split batten  
Mounting on the panels by means of Euro screws
- W**  
Split batten  
Installation on the existing, stable and level wall with suitable fasteners

- 1** Euro screws for fixing the split battens on the gypsum fibre board cylinder head Type B galvanized
- 2** Suitable fastening to the existing wall
- 3** Designboard ACOUSTIC LINE

**Recommendation:**  
Use a cordless screwdriver with a torque limiter - the screw must not be overtightened.



# ACCESSORIES

## PROTECT RAIL - OPTIMAL EDGE PROTECTION

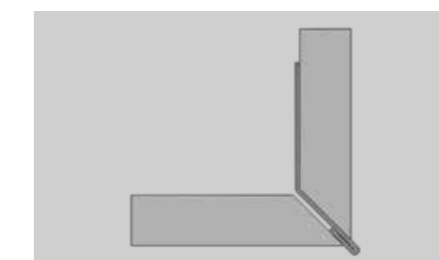


PROTECT RAIL profile system made of high-quality stainless steel ensures a permanent protection of Designboards in the

frequently visited places (e.g. clinics, hospitals, schools, gyms, concert halls etc.). It can also preserve its appearance and optimal

performance. In addition to its function, the Protect System also impresses with its fire protection and design as a holistic system.

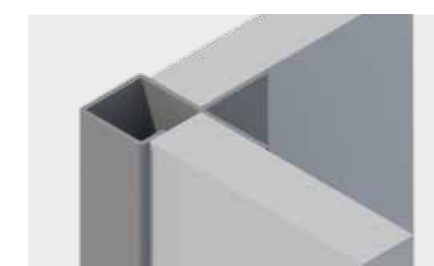
P1 miter profile 45°  
[ 15 x 15 mm / 22 x 22 mm ]



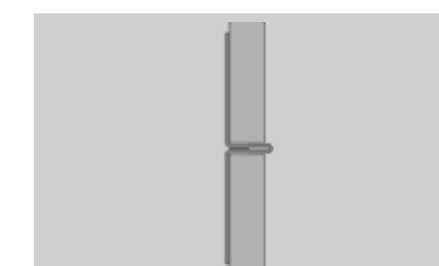
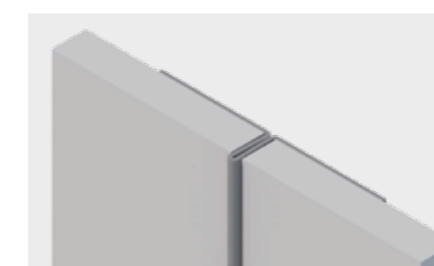
P2 star profile  
[ 15 x 15 mm / 22 x 22 mm ]



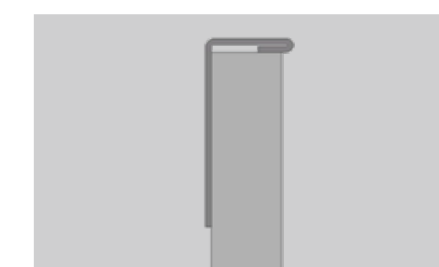
P3 square profile  
[ 15 x 15 mm / 22 x 22 mm ]



P4 connection profile  
[ 15 x 15 mm / 22 x 22 mm ]



P5 finishing profile  
[ 15 x 15 mm / 22 x 22 mm ]





## KNAUF DESIGN

KNAUF riessler GmbH & Co. KG

Süßwiesenstraße 10

74549 Wolpertshausen

phone: +49 7904 944 681-0

fax: +49 7904 944 681-10

[info@knauf-design.com](mailto:info@knauf-design.com)

[www.knauf-design.com](http://www.knauf-design.com)

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**Knauf riessler GmbH & Co. KG**  
**Süßwiesenstraße 10**  
**74549 Wolpertshausen**  
**Germany**

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