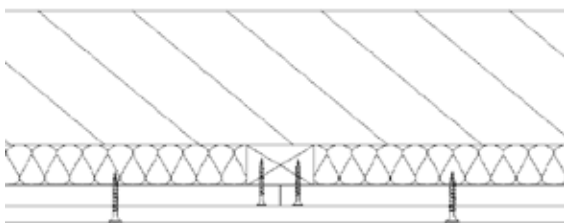
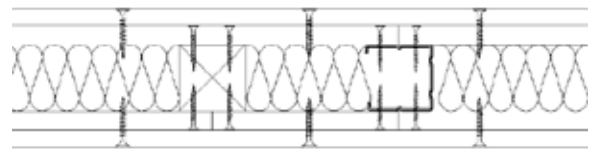
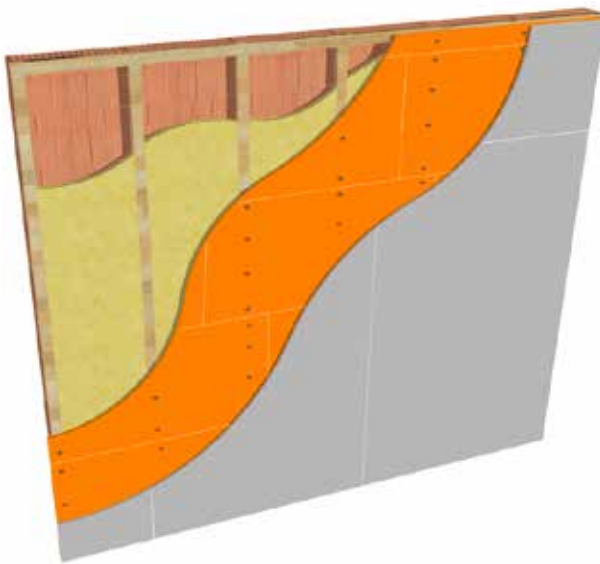




Insulation boards PhoneStar

Installation instructions Wall



ONE solution - universal in every area

PhoneStar is an innovative, very efficient insulation board comprised of the environmentally friendly basic materials of wood and sand—or more precisely, corrugated cardboard and highly compressed quartz sand. PhoneStar very efficiently insulates airborne and impact sound with low panel thickness and airborne sound with low wall thicknesses.

Introducing the PhoneStar family:

Area of application: Floor, wall and ceiling

PhoneStar TRI

- Triple wall parallel
- Dimensions: 1250 x 625 x 15 mm
- Dimensions: 1200 x 800 x 15 mm

PhoneStar TWIN

- Double wall parallel
- For thin installations
- Dimensions: 1250 x 625 x 10 mm
- Dimensions: 1200 x 800 x 10 mm

Area of application: Floor

PhoneStar PROFESSIONAL

- Three wall crossed
- Dimensions: 1200 x 800 x 15 mm



10 benefits that inspire

- » Very good airborne sound insulation and impact sound insulation
- » Low board thickness of 10 or 15 mm
- » Quick, clean and simple installation
- » Natural basic materials for sustainable construction
- » A universal solution for floors, walls, and ceilings
- » Very high pressure resistance
- » All types of end flooring possible on floor
- » Comfortable living environment, buffers heat and moisture
- » More living space due to low panel thickness
- » Increased property value due to superior sound insulation

A - Before assembly

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A1. Environmental conditions for PhoneStar - FOLLOW THESE INSTRUCTIONS!

Construction site conditions

PhoneStar boards may only be put into closed and heated rooms under constant climatic conditions. The minimum temperature is +15°C and air humidity must be 30 - 60%. The environmental conditions must be documented before installation starts.

Acclimatization / Storage

Prior to installation, PhoneStar boards must acclimate in the installation room for a minimum of 24 hours to avoid minimal shrinkage after installation that could result in open joints or warping effects. Store the boards laid flat.

Tip: Divide boards into multiple smaller piles of boards; this promotes and accelerates acclimatization compared to boards piled in one stack.

Sun protection

The PhoneStar boards must be protected from the sun when in storage or being laid in order to avoid minimal shrinkage that could result in open joints and warping effects

Documentation requirement & disclaimer

It is necessary to check environmental conditions prior to installation of PhoneStar boards (construction site conditions and moisture control on the subsurface). The measurement results must be documented and sent to Wolf Bavaria by fax or email prior to installation.

Wolf Bavaria GmbH does not assume any liability in the event of non-observance of environmental conditions or the documentation requirement.

Documentation log: www.wolf-bavaria.eu~Downloadcenter

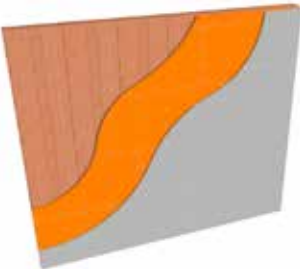
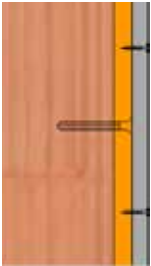
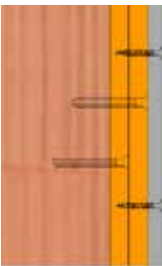
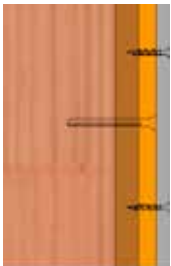
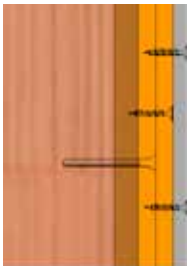
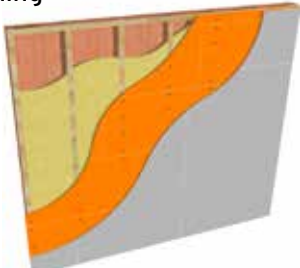
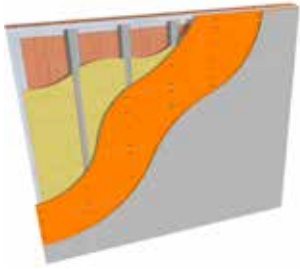
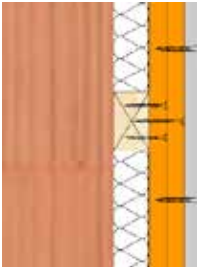
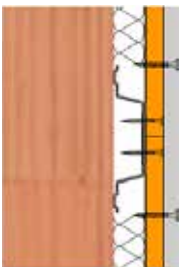
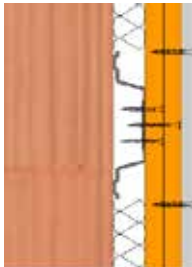
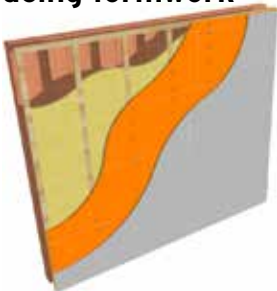
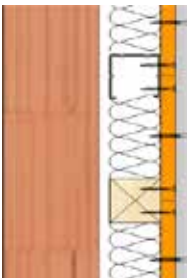
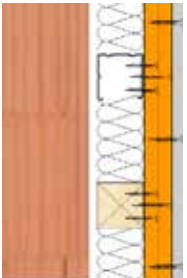
General note:

PhoneStar sound insulation boards generally require end covering (e.g. plasterboard). It is not possible to plaster, paint, wallpaper, etc., directly onto PhoneStar.

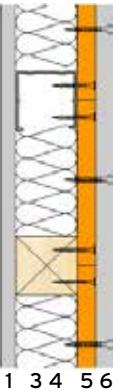
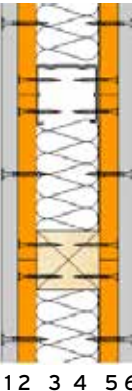
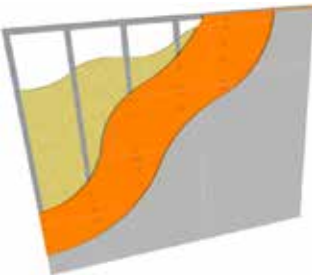
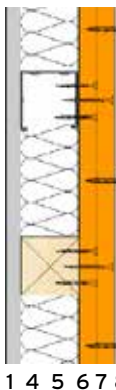
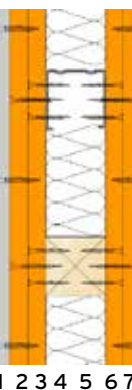
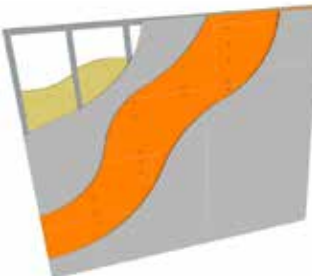
A2. Wolf Special Products

Product	Image	Description
Wolf Tape Roll 50 m		Masking of the cut edges on PhoneStar. Sealing of the joint edge area in the PhoneStar layer.
Wolf System Glue Bottle 1,0 kg approx. 10 m ² / Bottle		Gluing of plasterboard on Phone Star in the variations in which Phone-Star is mounted directly on solid walls or existing stud walls.
Wolf Joint Filler Cartridge 310 ml		Joint sealant for wall, floor and ceiling connections.
Wolf System Dowel Package: 50 / 250 units Dimensions: 6 x 60 mm (6 x 100, 8 x 120 mm) Use: 12 units / board		Direct mounting of PhoneStar on solid walls.
Plasterboard screw (Plaster in plaster screw) Dimensions: 5,5 x 38 mm Package: 500 units. Use: approx. 16 units / m ²		Mounting of plasterboard in Phone-Star when mounted with substructure.
Plasterboard screw (Drywall screw - coarse threads) Dimensions: 3,9 x 35 mm Package: 1000 units. Use: 12 units / board		Mounting of PhoneStar in wooden substructure.
Plasterboard screw (Drywall screw - fine threads) Dimensions: 3,9 x 35 mm Package: 1000 units Use: 12 units / boards		Mounting of PhoneStar in metal substructure.
Plasterboard screw (Drywall screw gypsum fibre) Dimensions: 3,9 x 22 mm Package: 1000 units Use: approx. 16 units / m ²		Mounting of plasterboard in Phone-Star assembly without substructure, in connection with Wolf System Glue.

A3. Overview of wall installations

Variation	Single	Double	Description
1 - Direct assembly 	 1 2 4	 1 2 3 4	1. Solid wall 2. PhoneStar 3. PhoneStar 4. Covering* *Covering screwed and additionally glued with PhoneStar together.
	 1 2 3 5	 1 2 3 4 5	1. Solid wall 2. Soft wood fibre 3. PhoneStar 4. PhoneStar 5. Covering
2 - Substructure Lathing  Plume strip 	 1 2 3 4 6	 1 2 3 4 5 6	1. Solid wall 2. Battens 3. Cavity insulation 4. PhoneStar 5. PhoneStar 6. Covering
	 1 2 3 4 6	 1 2 3 4 5 6	1. Solid wall 2. Resilient bars 3. Cavity insulation 4. PhoneStar 5. PhoneStar 6. Covering
3 - Facing formwork 	 1 2 3 4 5 7	 1 2 3 4 5 6 7	1. Solid wall 2. Air gap approx. 10 mm 3. Substructure wooden / metal 4. Cavity insulation 5. PhoneStar 6. PhoneStar 7. Covering

A3. Overview of wall installations

Variation	Single	Double	Description
4 - Stud wall Wooden stud framing 	 1 3 4 5 6	 1 2 3 4 5 6	1. Covering 2. PhoneStar 3. Stud framing wooden / metal 4. Cavity insulation 5. PhoneStar 6. Covering
Metal stud framing 	 1 4 5 6 7 8	 1 2 3 4 5 6 7 8	1. Covering 2. PhoneStar 3. PhoneStar 4. Stud framing wooden / metal 5. Cavity insulation 6. PhoneStar 7. PhoneStar 8. Covering
5 - Existing stud wall Wooden stud framing 	 3 4 5 6 7 8	 1 2 3 4 5 6 7 8	1. Covering* 2. PhoneStar 3. Covering 4. Stud framing wooden / metal 5. Cavity insulation 6. Covering 7. PhoneStar 8. Covering* *Covering screwed and additionally glued with PhoneStar together.
Metal stud framing 	 4 5 6 7 8 9 10	 1 2 3 4 5 6 7 8 9 10	1. Covering 2. PhoneStar 3. PhoneStar 4. Covering 5. Stud framing wooden / metal 6. Cavity insulation 7. Covering 8. PhoneStar 9. PhoneStar 10. Covering

A4. Electrical installation

In order to avoid adverse effects in the electrical installation through traditional installation elements, Wolf Bavaria recommends the use of sound insulation sockets for optimal sound insulation in the wall area.



Sound insulation sockets

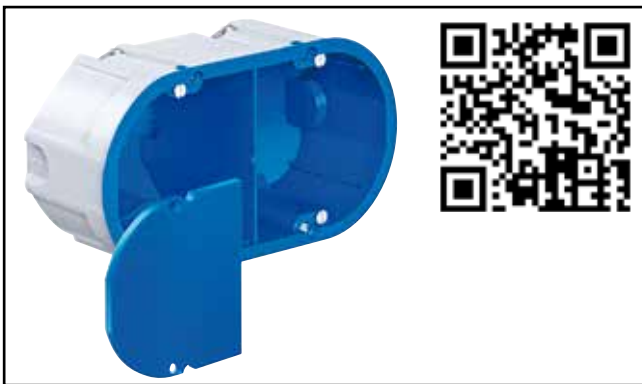
Electrical installation with sound insulation socket for use in walls with higher requirements for sound insulation. The solid socket with additional sound insulation casing absorbs and reflects sound so that there is no negative impact on neighbouring rooms and the sound insulation works as if no installation sockets have been installed in the wall.



Device connection socket with cover
Kaiser item no. 9069-01 + 1184-69



Device connection socket, non-halogen
Kaiser item no.: 9069-77



Electronics socket, can also be used as a double socket
Kaiser item no.: 9069-94



Electronics socket, can also be used as a double socket
Non-halogen design
Kaiser item no.: 9069-74

→ Additional information available at: www.kaiser-elektro.de

A5. Installation times

Depending on the routine, the following installation times can be used as a calculating guideline when installing PhoneStar boards.

Installation of PhoneStar TRI & TWIN		
Installation variation	Direct mounting	Mouting on substructure
Installation time min / m ²	5 - 7	4 - 6

The installation times provided are based on one person.

The installation times include:

- Assembly of PhoneStar boards including board preparation (PhoneStar single-layer).

Not taken into account:

- Material transport to the installation space
- Assembly of any substructures
- Insertion of cavity insulation
- Assembly of covering

Note: Approx. 5% waste should be considered in terms of the required materials.

B1. PhoneStar - cutting and taping



Measure and mark cutting line

Process on stable work surface - adhere to occupational safety!



Cut board

Jigsaw with ceramic or metal saw blade, circular hand saw with Widia blade and suction. If necessary, refill sand after cutting.



Mask boards

Only mask cut edges with Wolf Tape*. Leave at least 2 cm of the Wolf Tape on the corners.



Cover corners

Fold the remaining tape on the corners down and press the excess tape on the sides down onto the board surface.



Push down the tape along the length of the board
Press down the Wolf Tape remaining on the side lengthwise.



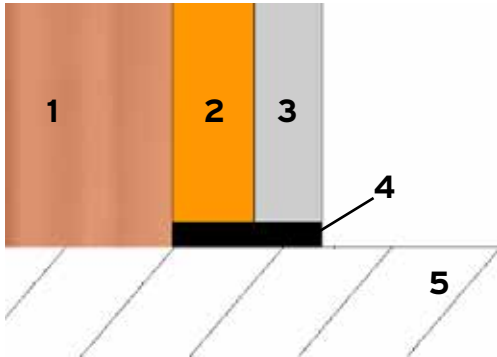
Done.

*Warning: PhoneStar boards and Wolf Tape comprise a coordinated system. Liability exclusion in the event that tapes other than Wolf Tape are used.

B2. General instructions for PhoneStar wall mounting

Isolation on the subsurface

Place a self-adhesive isolation strip along the base of the wall prior to the actual mounting. Isolation strips make it easier to align the first row of PhoneStar boards and also allow for direct mounting of the covering without floor joints.



1 Wall or stud framing

2 PhoneStar

3 Covering

4 Isolation strip

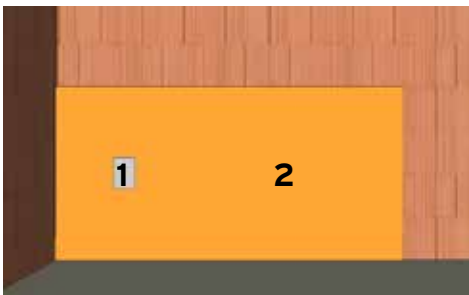
5 Subsurface

Suitable isolation materials:
Self-adhesive foamed rubber or partition wall tapes, thickness 3 / 5 mm, the width must be selected according to the corresponding wall construction incl. covering.

Directly press the PhoneStar boards on the flanking walls and ceilings. Work without joints to the greatest extent possible.

Board alignment

PhoneStar boards are mounted on all walls - with and without substructures - horizontally with the length side parallel to the floor. Visible side (side with label) facing into the room during assembly.



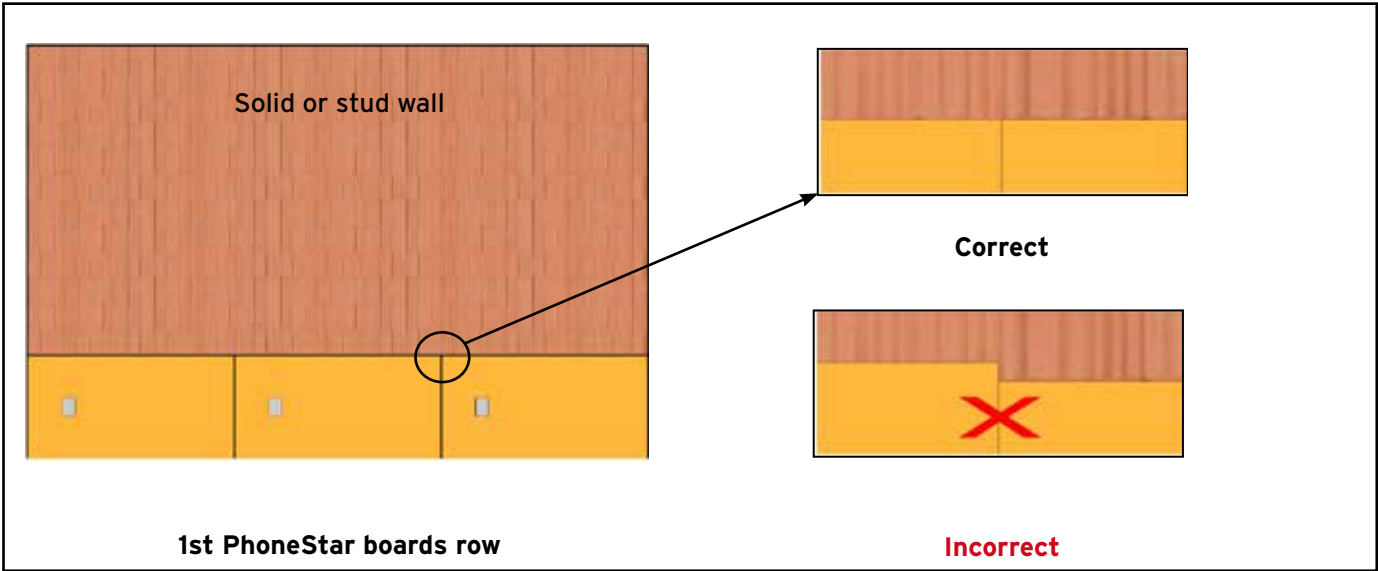
1 Visible label

2 Horizontal PhoneStar board

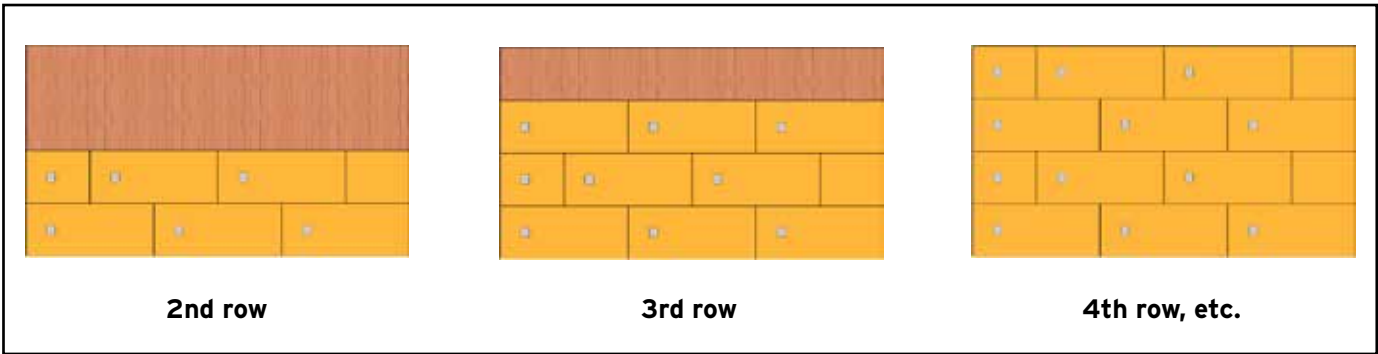
Visible side	Side with label Board surface with clearly recognizable corrugation
Wall side	Side without label Board surface flat, no corrugation

Board mounting

Mount the PhoneStar boards slowly, precisely and one after the other. Begin mounting in the left or right corner of the room. With the first PhoneStar board, it is important to make sure that the board is horizontal, and does not have any height offset, so that all further boards can be fitted cleanly, and without visible joints.



Mount all subsequent rows of PhoneStar boards with an offset of a half board length (or min 10 cm) with regard to the previous row to avoid crossed joints in the PhoneStar layer.



General note:
PhoneStar sound insulation boards generally require end covering (e.g. plasterboard). It is not possible to plaster, paint, wallpaper, etc., directly onto PhoneStar.

Joint tightness

In order to achieve optimal sound insulation results, the vertical and horizontal edges of the PhoneStar boards are masked with Wolf Tape after the PhoneStar boards have been mounted.



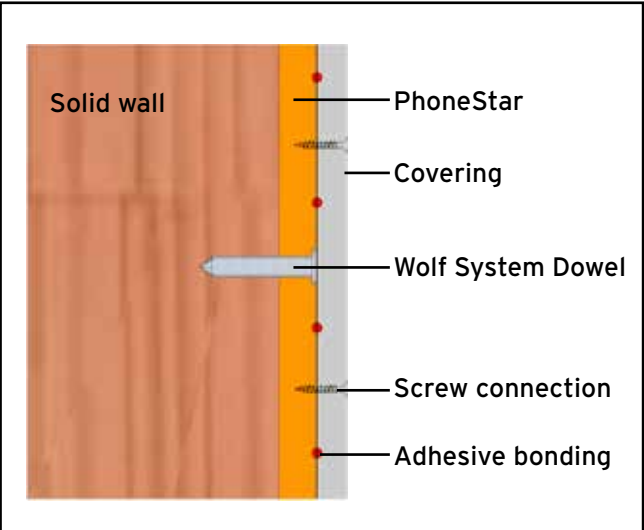
In the event that joints form on wall or ceiling connections, the areas must be filled in with Wolf Joint Filler.



B3. Direct mounting on solid walls

Direct mounting of the PhoneStar boards in the wall strengthening variation that saves the most space. The PhoneStar boards are mounted on a solid wall with Wolf System Dowels and subsequently covered (e.g. plasterboard).

Follow the general mounting instructions found in chapter B2 when mounting PhoneStar boards.

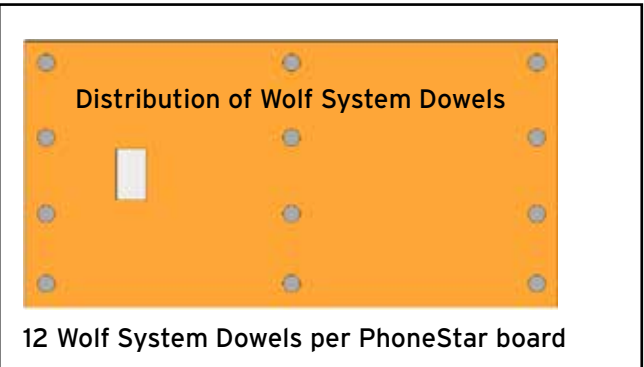
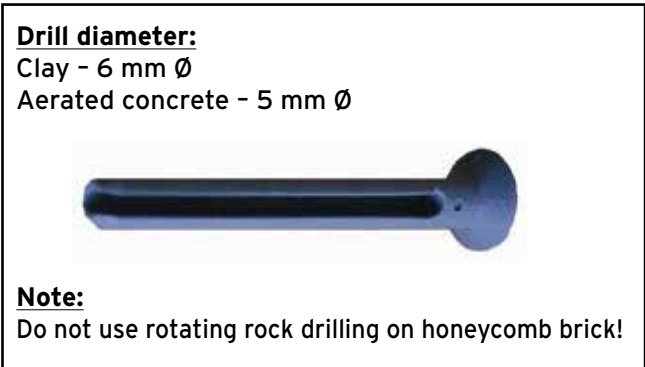


Wall composition

An even wall surface that guarantees a complete application of the PhoneStar boards is a requirement for direct mounting of the PhoneStar boards on a solid wall.
The Wolf System Dowels must have an anchoring depth in the solid wall of at least 30 mm.
If a layer of soft wood fibre is also placed between the solid wall and the PhoneStar boards, then the length of the Wolf System Dowels must take into account the additional layer.

Mounting

Use 12 Wolf System Dowels in a 3 x 4 pattern for each PhoneStar board. Place the Wolf System Dowels between 2-3 cm from the edge of the board on the external side.



* Note: Minimum anchoring depth in stonework 30 mm. The length of the dowels must take this depth in to account. Only Wolf System Dowels in walls. Ceiling mounting not possible!

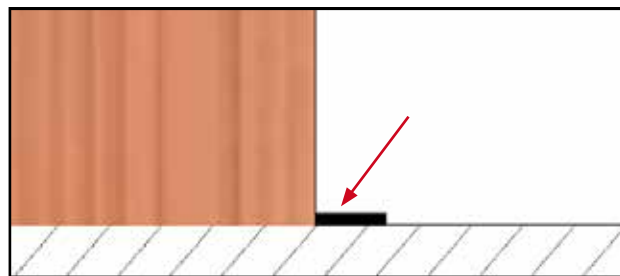
Step-by-step direct mounting process:

Step 1 - lay isolation strips

Place a self-adhesive isolation strip on the subsurface along the base of the wall.

Material:

Partition wall or foamed rubber strips



Step 2 - Drill hole

Drill a hole in the solid wall through the PhoneStar board, which is completely touching the wall.

Drill diameter:

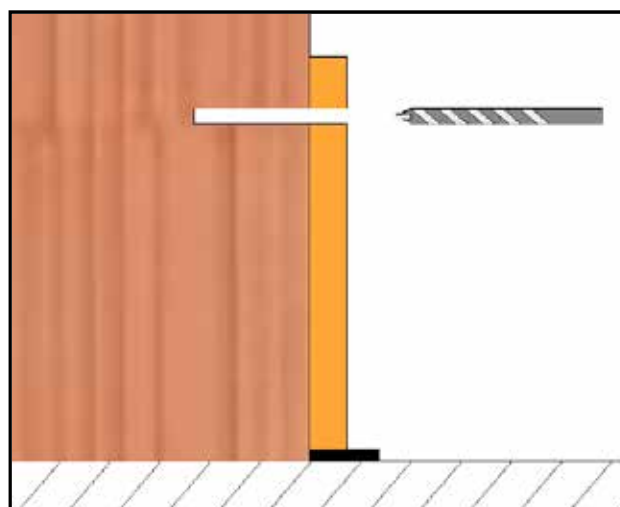
Clay - 6 mm Ø

Aerated concrete - 5 mm Ø



Note:

Do not use rotating rock drilling on honeycomb brick!

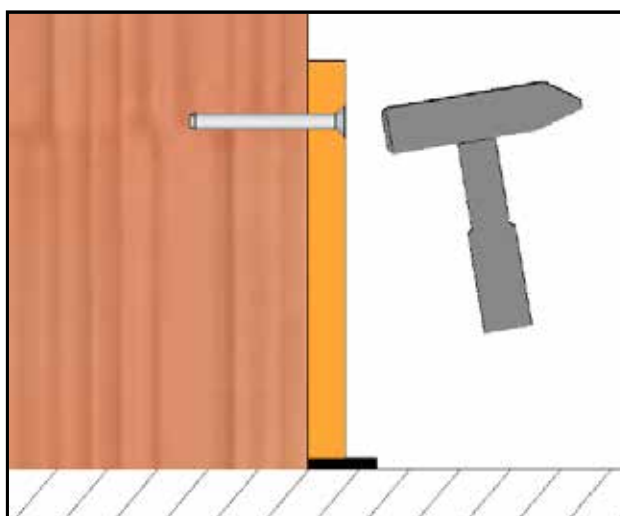


Step 3 - Place Wolf System Dowels

Hammer the Wolf System Dowels into the drilled holes. Hammer the dowel until it is slightly recessed in the surface of the PhoneStar board.

Per PhoneStar board

12 Wolf System Dowels



Step-by-step direct mounting process:

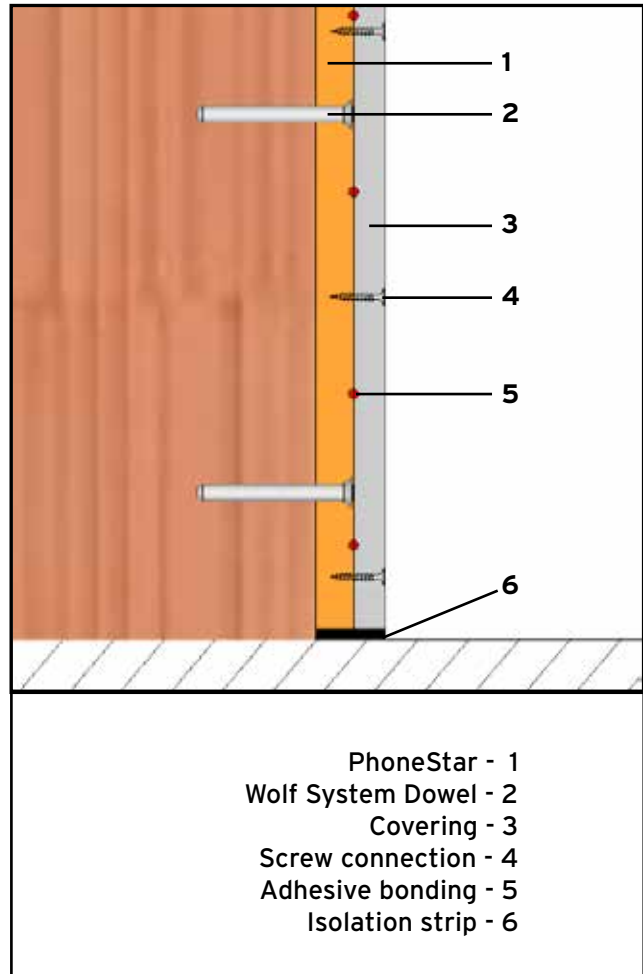
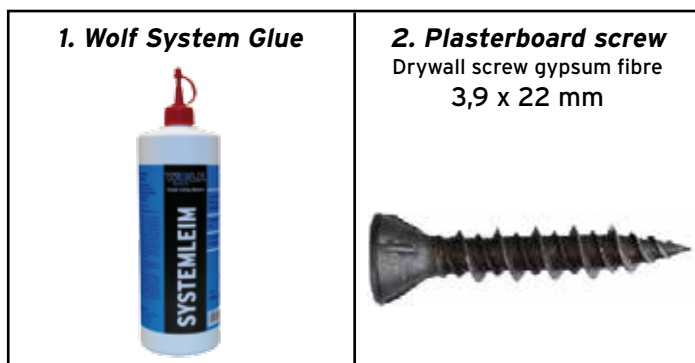
Step 4 - Cover PhoneStar

Generally, the PhoneStar layer is subsequently covered with a layer of plasterboard. In terms of direct mounting, the covering layer requires a minimum thickness of 12.5 mm. The plasterboard is mounted with adhesive and screws.

1. Gluing. Apply glue along the entire length of the plasterboard to be mounted using multiple beads of Wolf System Glue (every 10 cm).

Completely press the plasterboard onto the PhoneStar layer and apply pressure.

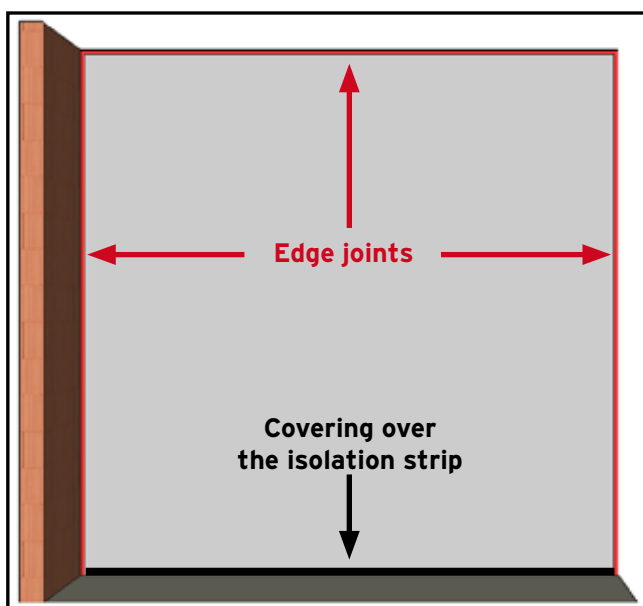
2. Screw the plasterboard layer into place with a pattern of approx. 25 cm in the PhoneStar layer, using 3,9 x 22 mm plasterboard screws.



Place the covering on the subsurface directly over the isolation strip.

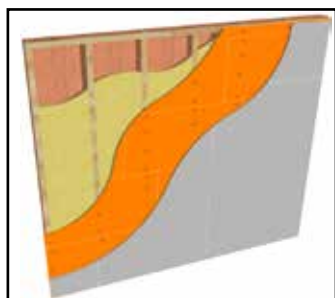
Keep a joint that is approx. 4 mm between the flanking wall and ceiling components.

Subsequently seal all connections to the floor, wall and ceiling with Wolf Joint Filler.

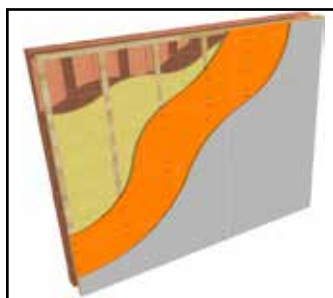


B4. Mounting on substructure & stud wall

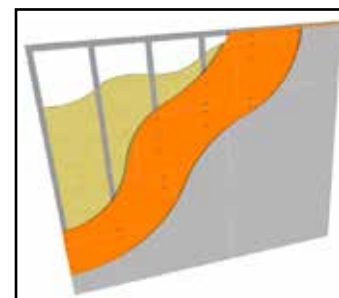
Mounting on the substructure (wood or metal) describes the process of mounting PhoneStar in the following cases:



Substructure
on solid wall



Isolated Stud Framework



Stud wall

Note: Follow the general mounting instructions found in chapter B2 when mounting PhoneStar boards.

Note: Heavy loads, such as kitchen cupboards, must be mounted onto a framework fitted securely to the substructure, so fit horizontal bars in between the vertical studs in the correct location.

Screw connection

PhoneStar boards are screwed into the relevant substructure with plasterboard screws. The screws are put into place using 12 screws per PhoneStar board (e.g. 3,9 x 35 mm*) in a 3 x 4 pattern. Wooden substructures require screws with coarse threads, while metal substructures require screws with fine threads.

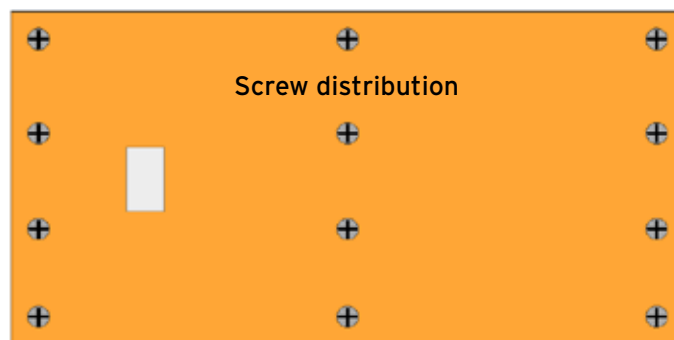
Plasterboard screws:



Metal substructure - fine thread



Wooden substructure - coarse thread



12 screws per PhoneStar board

Substructure

Substructures must be set up with 60 / 62.5 cm contact spacing from the middle of the stud to the middle of the stud, which corresponds to the 120 x 80 or 125 x 62.5 cm PhoneStar board sizes. The installation instructions from the relevant manufacturers must be followed for the stud framing.

Cavity insulation

Cavities in the wall installation generate resonance and have a negative effect on sound insulation. In order to avoid this, cavities must be lined with insulating material as they form in substructures between the individual studs in the stud framing.

Insulation materials: plates made of minerals, mineral wool, hemp or cellulose.

Warning: EPS, PU or similar materials are not suitable for use with PhoneStar!

Tip: With regard to facing formwork, use to improve the footing of insulating material in stud framing boards - instead of reel material.

* The length of the screws must be determined according to the relevant substructure.

Substructure on solid wall

A substructure can be made on a solid wall in the form of wooden lathing or a metal – resilient bars.
Place an edge profile on the flanking components.



Wooden lathing



Resilient bars

Stud wall & facing formwork substructure

Stud walls and facing formwork can be made out of wooden or metal stud framing. Follow the relevant installation instructions for the setting up and isolation of the stud framing, see manufacturer's instructions.

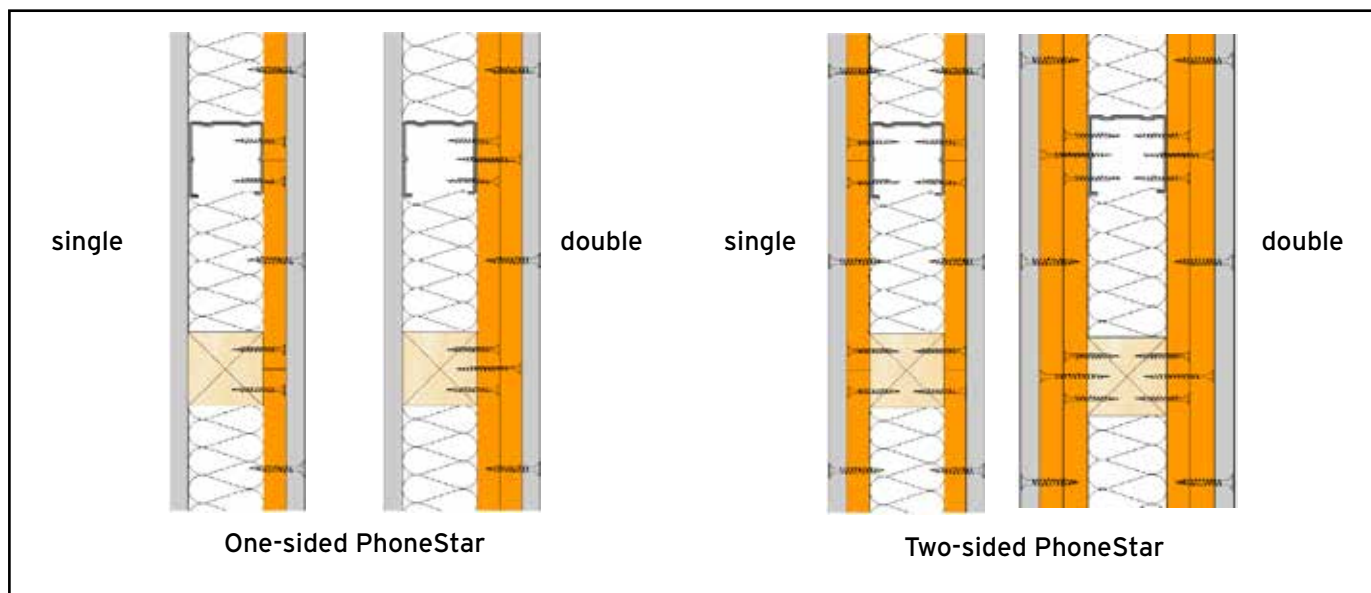


Wooden substructure



Metal substructure

With regard to stud walls, one- or two-sided PhoneStar mounting in a single- or double-coated design is possible.

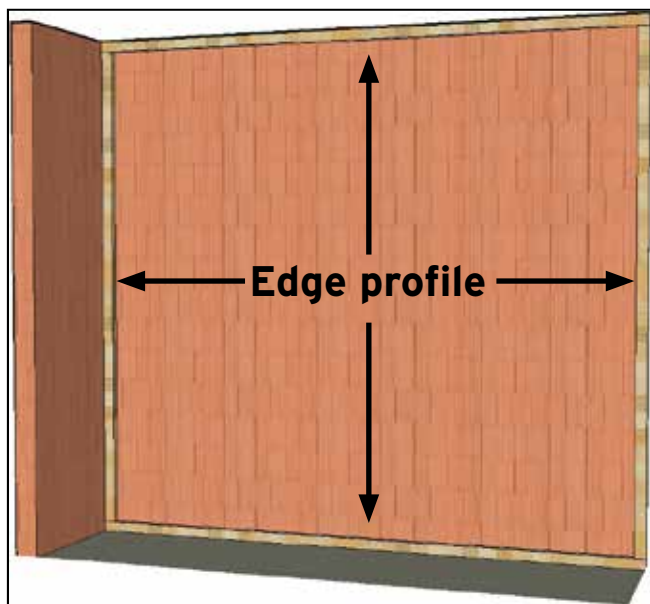


The process of mounting with substructure

PhoneStar boards are mounted on a substructure placed directly on the wall in the same way as on substructures for stud walls and stud framing. Below is an example description of a substructure on a solid wall. The process is different for the mounting of PhoneStar and covering with plasterboard on existing stud walls; in this regard, also follow the instructions in chapter B4.1.

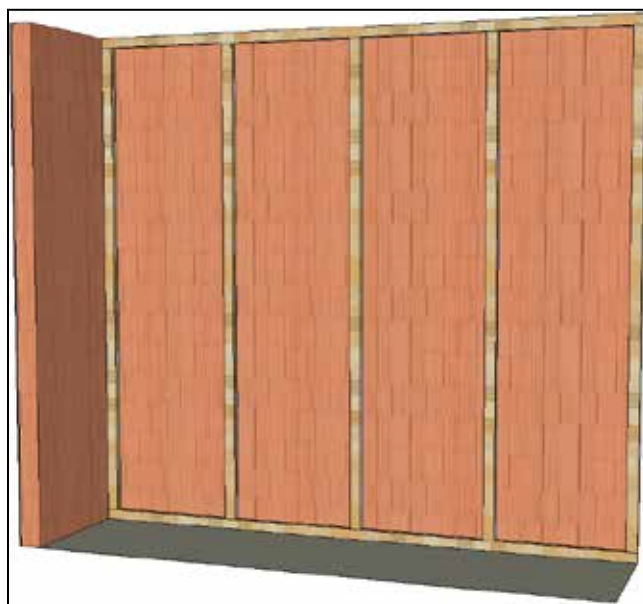
Step 1 - Edge profile

Place an edge profile on the flanking components (floor, walls, ceiling).



Step 2 - Stud framing

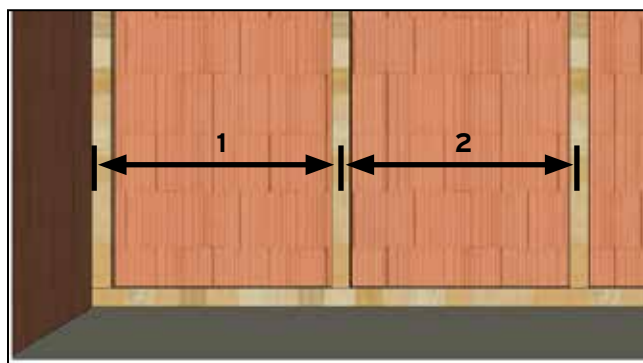
Mount the substructure vertically within the edge profile.



Generally, mount the stud framing with a distance of 60/62.5 cm from the middle of the stud to the middle of the stud, based on the PhoneStar board sizes 120 x 80 or 125 x 62.5 cm.

Please note

The distance (1) between the wall and the middle of the second stud is 60 / 62.5 cm. Then (2) the distance from the middle of the stud to the middle of the stud is 60/62.5 cm.



Step 3 - Insulation

Line the cavity that is created between the individual studs of the substructure with an insulating material.

Insulating material:

- Mineral wool or rockwool
- Soft wood fibre, hemp or cellulose boards

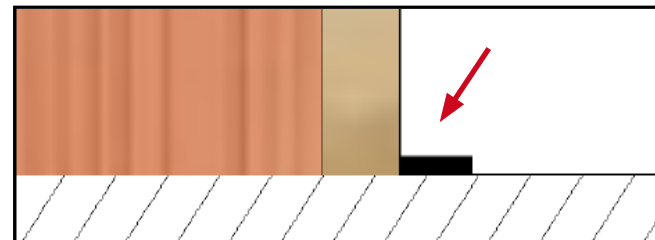


Step 4 - Lay isolation strip

Place a self-adhesive isolation strip along the substructure.

Material:

Partition wall or foamed rubber strip



Step 5 - Mount PhoneStar

Screw the PhoneStar boards into substructure.

Plasterboard screws:

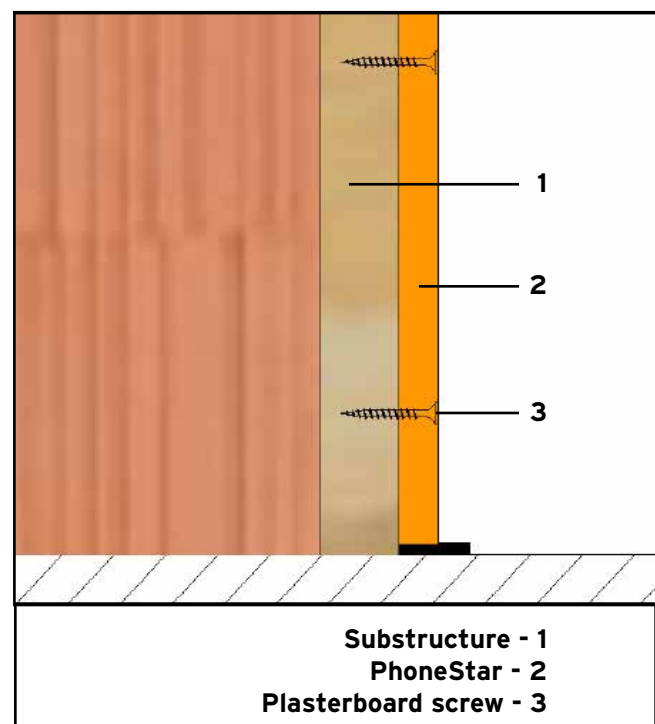


Metal substructure - fine thread



Wooden substructure - coarse thread

12 screws per board



Note: The general mounting instructions in chapter B2 must be followed when mounting PhoneStar boards.

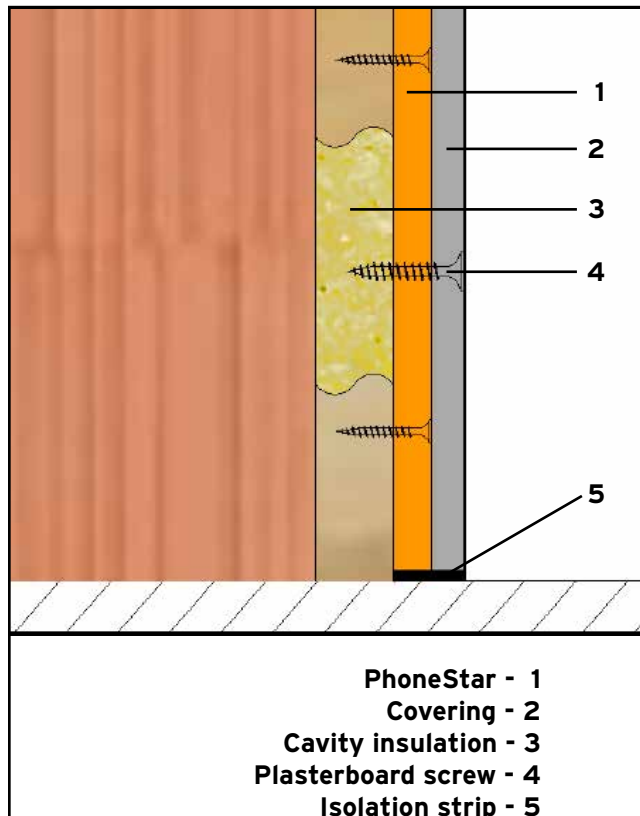
Step 6 - Cover PhoneStar

Generally, the PhoneStar layer is subsequently covered with a layer of plasterboard.

Screw the plasterboard layer into place with Plasterboard screws 5,5 x 38 mm with a pattern of approx. 25 cm in the PhoneStar layer.

Important note:

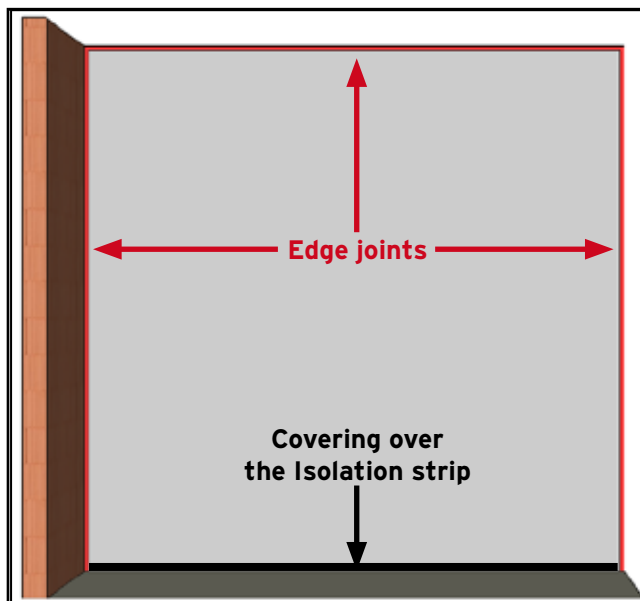
The plasterboard screw connection is established in the wall area in the PhoneStar board - no screwing through PhoneStar into the substructure.



Place the covering on the subsurface directly over the isolation strip.

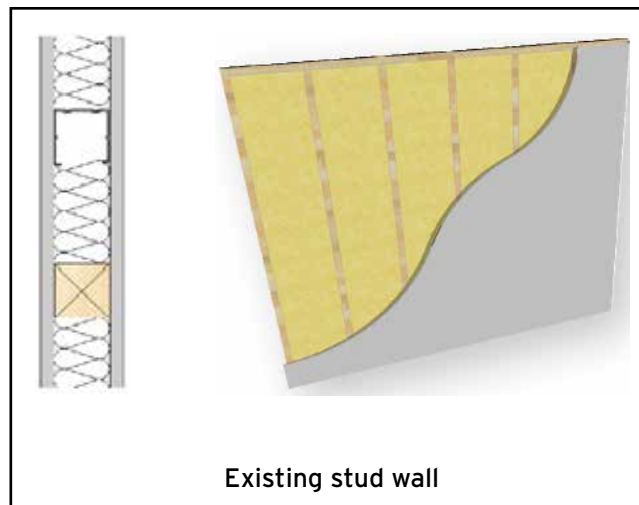
Keep a joint that is approx. 4 mm between the flanking wall and ceiling components.

Subsequently seal all connections to the floor, wall and ceiling with Wolf Joint Filler.



B4.1 Existing stud walls

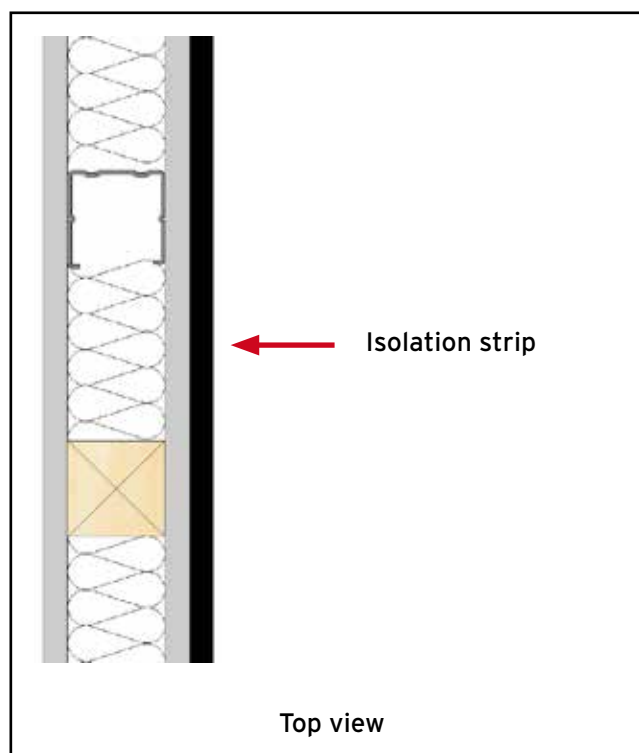
Existing stud walls can also be strengthened at a later time with PhoneStar in either a one-side or two-sided manner with one or more layers of PhoneStar. With regard to stud walls in existing buildings, the PhoneStar boards required a subsequent covering (e.g. plaster-board) with a minimum thickness of 12.5 mm.



The process regarding existing stud walls

Step 1 - lay isolation strips

Place a self-adhesive isolation strip on the subsurface along the base of the wall.

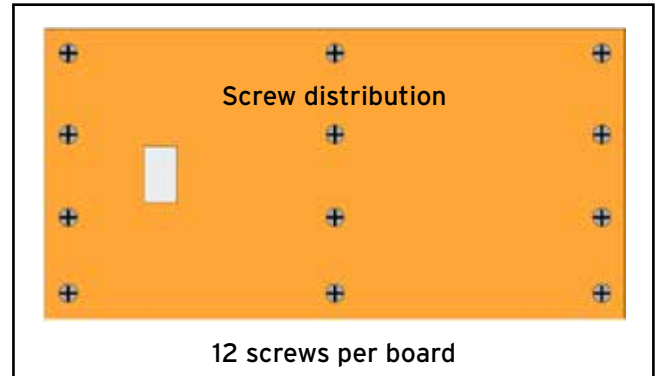


Material:

Partition wall or foamed rubber strip

Step 2 - Mount PhoneStar

Screw PhoneStar boards into the existing stud wall. It is necessary to use suitable screws to mount the PhoneStar boards based on the type of existing wall installation. Thus, the PhoneStar boards must be screwed into the substructure in points with a substructure in the wall installation. In areas with no substructure, screws must be used that correspond to the wall material:



Note: The general mounting instructions in chapter B2 must be followed when mounting PhoneStar boards.

Mounting of PhoneStar in:

1: Substructure - metal*

Plasterboard screws (fine thread)



2: Plasterboard*

Plasterboard screws (Plaster in plaster screws) 5,5 x 38 mm



3: Gypsum fibre*

Plasterboard screws (Drywall screws gypsum fibre) 3,9 x 35 mm

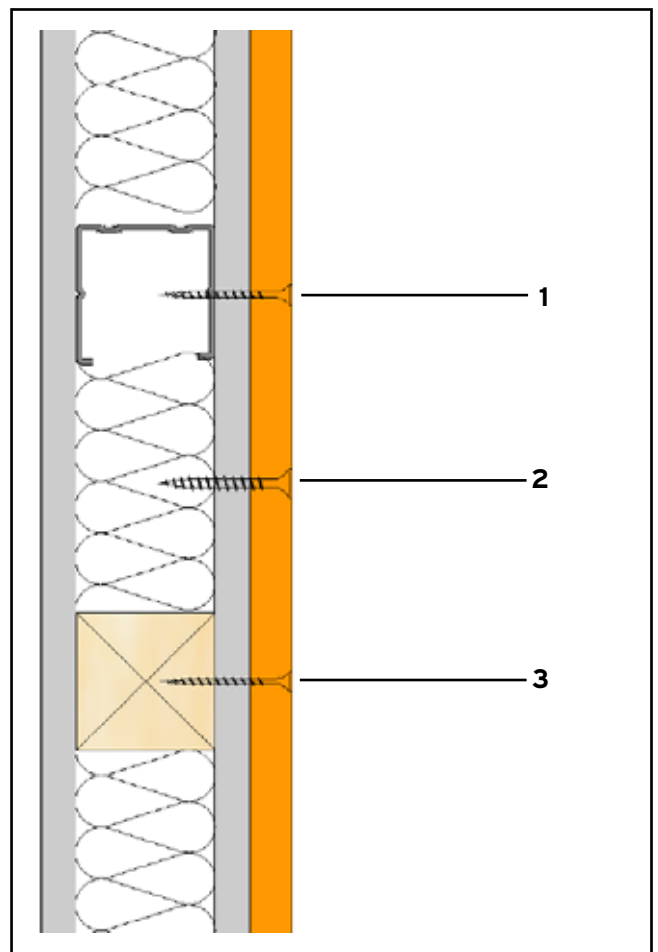


4: Substructure - wood*

Plasterboard screws (coarse thread)



*The type of screw and screw lengths must be suitable for the relevant substructure or wall material.



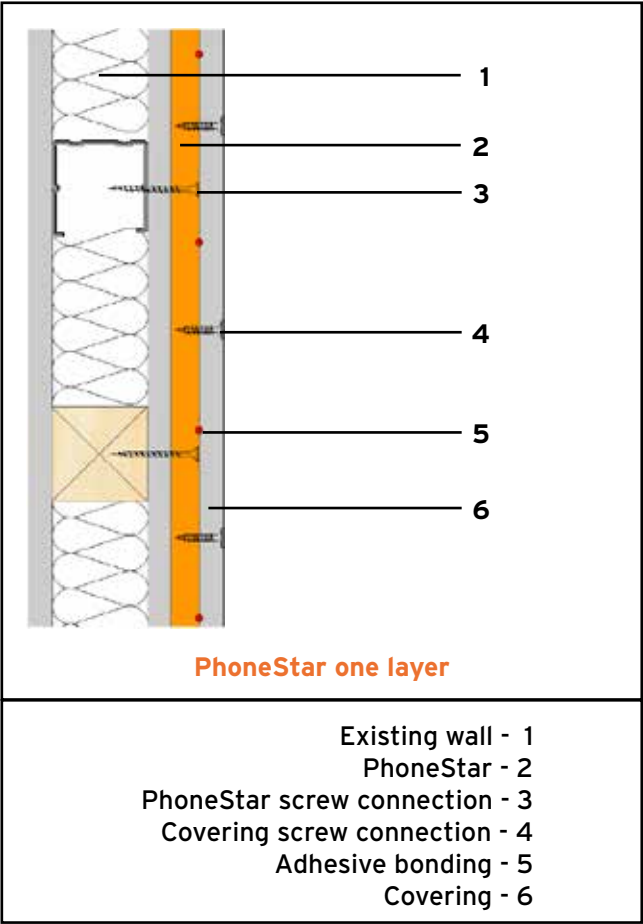
Step 3 - Cover PhoneStar board

Generally, the PhoneStar layer is subsequently covered with a layer of plasterboard. The covering layer requires a minimum thickness of 12.5 mm.
The plasterboard is mounted with adhesive and screws.

1. Gluing. Apply glue along the entire length of the plasterboard to be mounted using multiple beads of Wolf System Glue (every 10 cm).
Completely press the plasterboard onto the PhoneStar layer and apply pressure.

2. Screw the plasterboard layer into place with a pattern of approx. 25 cm in the PhoneStar layer, using 3.9 x 22 mm plasterboard screws.

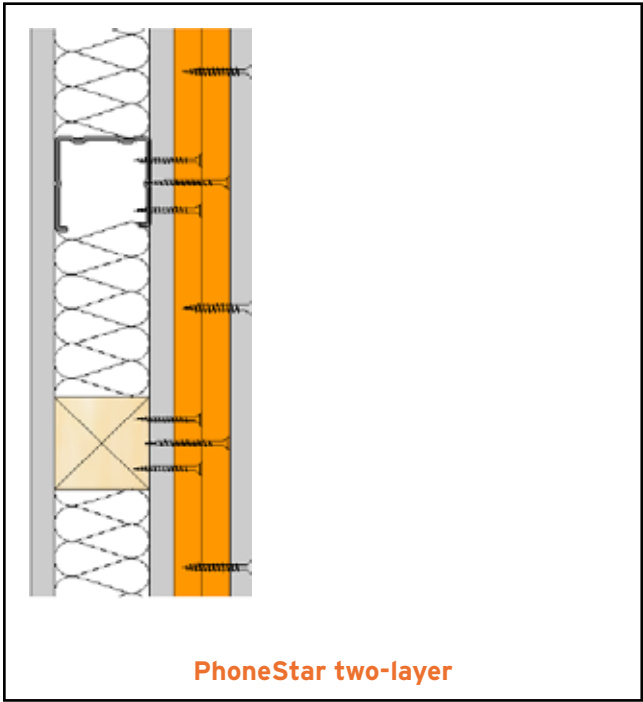
1. Wolf System Glue 	2. Plasterboard screw Drywall screw gypsum fibre 3,9 x 22 mm 
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With two-layer PhoneStar, plasterboard is mounted by using plasterboard screws, 5.5 x 38 mm in a pattern of approx. 25 cm, in the PhoneStar layer.

Plasterboard screw - 5,5 x 38 mm (Plaster in plaster screw) 

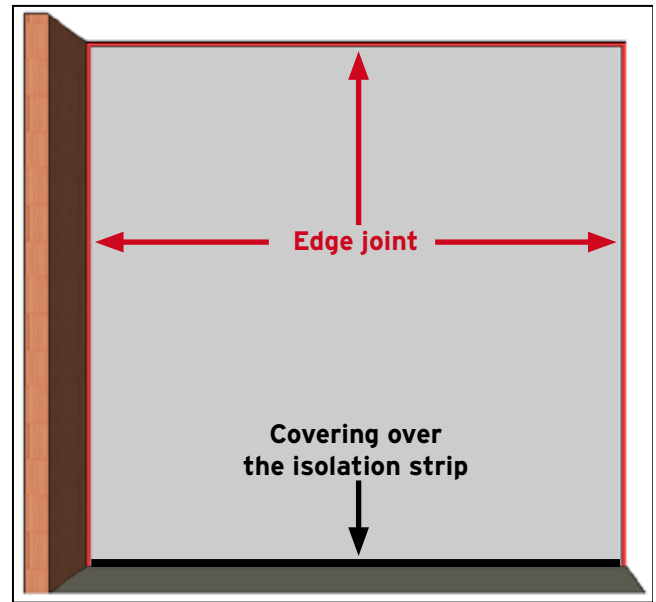
Pattern approx. 25 cm



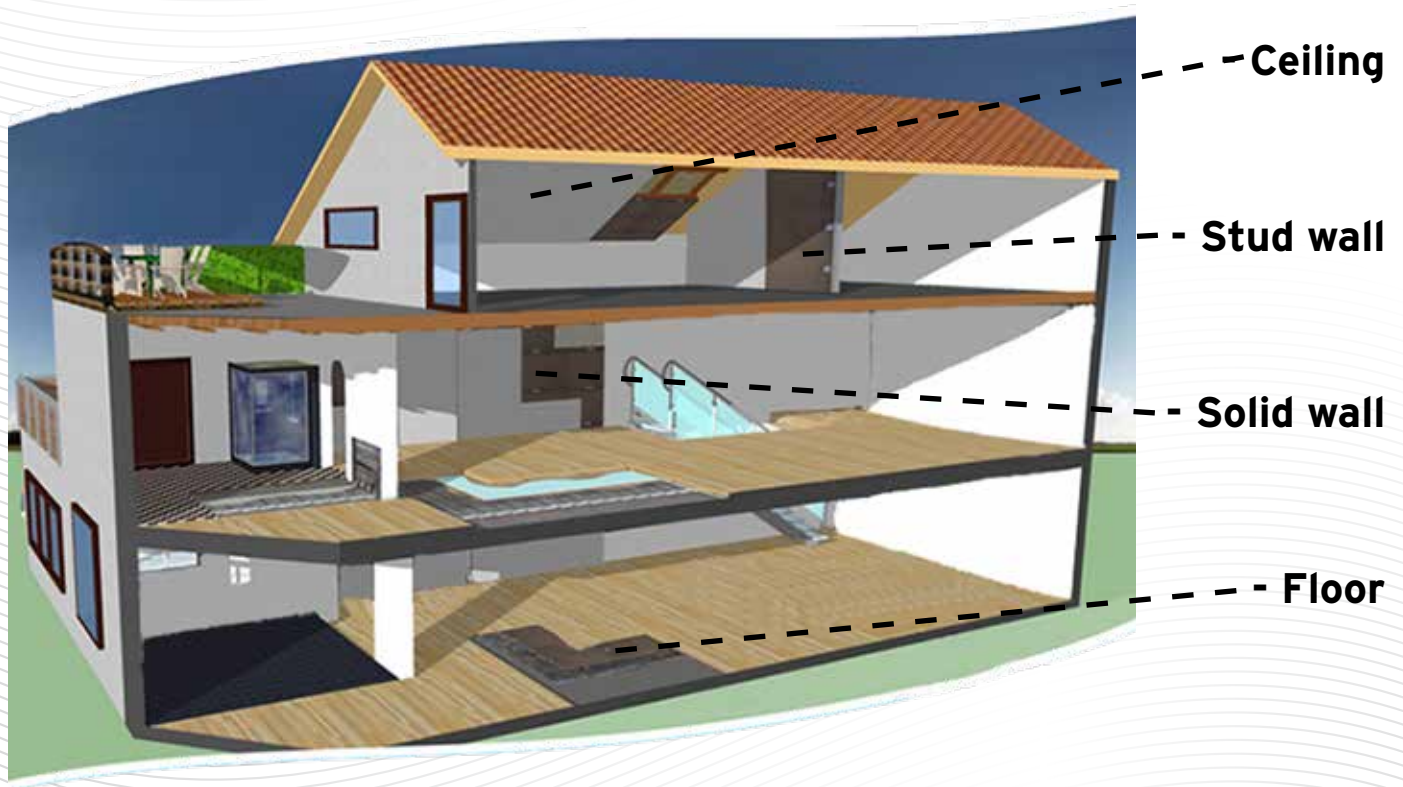
Place the covering on the subsurface directly over the isolation strip.

Keep a joint that is approx. 4 mm between the flanking wall and ceiling components.

Subsequently seal all connections to the floor, wall and ceiling with Wolf Joint Filler.



Areas of application for PhoneStar boards



Technical consultation and trader directory:
www.wolf-bavaria.eu/Retailer

NEW! Sound Insulation Planning Guide online: [www.wolf-bavaria.eu/Planning Guide](http://www.wolf-bavaria.eu/Planning%20Guide)



*The Sound Insulation Planning Guide is available
as a PRINT and WEB version.*



Installation instructions Wall



Sound insulation boards

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