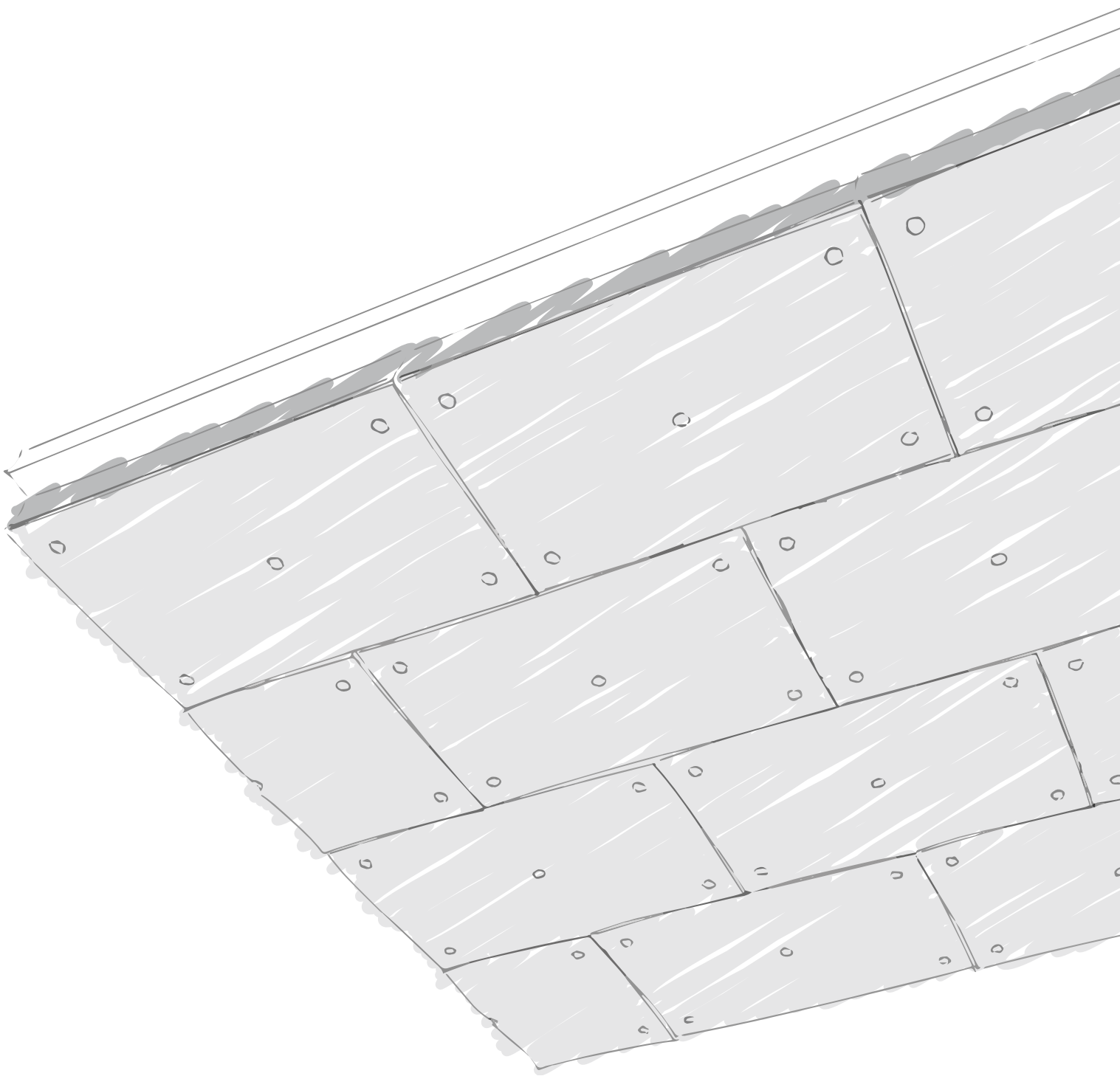
COVERINGS WITH MECHANICAL FIXINGS



CELENIT
NATURAL INSULATORS

STREAT - FOOD & BEERS EXPERIENCE Milano, IT
design: Roberto Cornacchio | photo: Alessia Mora

Item specifications

CELENIT thermal insulation and sound absorbing coverings, for ceilings and walls with mechanical fixings, model ACOUSTIC ..., with thermal and acoustic insulation,
eco-friendly and sound absorbing boards - CELENIT ... product range, CELENIT ... item No. ... - made of mineralized ... fir wood wool bound with white Portland cement, it complies with EN 13168 and EN 13964 standards, it can be coupled with rock wool or polystyrene (ACOUSTIC MINERAL/STYR product range); dim.: ... x ... mm; th.: ... mm; texture: ...; straight edges (code: D) or chamfered edges (code: S4); weight: ... kg/m²; λ_D: ... W/mK; R_D: ... m²K/W; compressive stress σ_{10}: ≥ ... kPa; water vapour transmission μ: 5; reaction to fire: Euroclass B-s1, d0 or A2-s1, d0 (EN 13501-1 standard); sound absorption: α_w ... / NRC ...; durability: class C; light reflection: 50.7 o 74.0% (painted white 05/15); release of formaldehyde: class E1; it does not contain asbestos.
Wood wool boards must be certified by ANAB-ICEA and natureplus for eco-compatibility of materials and manufacturing process, PEFC™ or FSC® for the sustainability of wood raw material, ICEA for the content of recycled material and for the attestation of LEED credits, EPD for the environmental statement.
Mechanical fixing with self-tapping DDS or DDS-Z screws for reinforced concrete support; self-tapping screws with countersunk head for wooden support.

Products

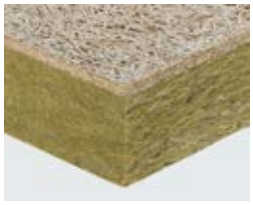
CELENIT ACOUSTIC range
ABE - AB

CELENIT ACOUSTIC A2 range
ABE/A2 - AB/A2

Boards made of mineralized wood wool bound with white Portland cement

Straight edges
D *for all thicknesses*

Chamfered edges
S4 *for all thicknesses*



CELENIT ACOUSTIC MINERAL range
L2ABE25C

CELENIT ACOUSTIC MINERAL A2 range
L2ABE25C/A2

CELENIT MINERAL range
L2AB

CELENIT MINERAL A2 range
L2ABE/A2 - L2AB/A2

Boards made of mineralized wood wool bound with white Portland cement coupled to a layer of rock wool

Straight edges
D *for all thicknesses*

Chamfered edges
S4 *for CELENIT L2ABE25C and CELENIT L2ABE25C/A2 boards*
S47 *for CELENIT L2AB - CELENIT L2ABE/A2 - CELENIT L2AB/A2 boards*

CELENIT STYR range
G2AB

Boards made of mineralized wood wool bound with white Portland cement coupled to a layer of polystyrene

Straight edges
D *for all thicknesses*

Chamfered edges
S47 *for all thicknesses*

Technical notes

• The boards used for direct application to the ceiling/wall with mechanical fixings combine sound absorption and fire protection performance with thermal insulation properties
• The aesthetic finish of the wood wool allows to avoid the application of plaster or plasterboards
• The compressive strength of wood wool and the compressive strength of the inner layer (rock wool or polystyrene) of coupled boards allow the direct applications to the ceiling/wall without crushing the panels
• The fixing system is aesthetically non-invasive

Applications

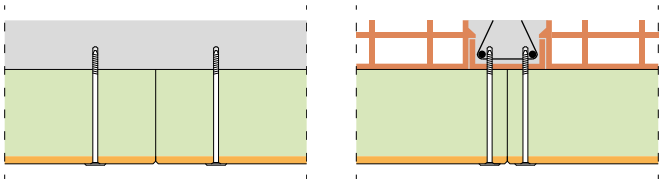
• Thermal insulation, sound absorption and fire protection of ceilings with direct application using mechanical fixings
• Thermal insulation, sound absorption and fire protection of walls with direct application using mechanical fixings

System

The type of screws and the fixings scheme change depending on the type of ceiling/wall. Generally this application system is used where the support is continuous over the entire surface (reinforced concrete or wooden ceiling/wall). If the support is discontinuous (reinforced concrete slab with lightening element or timber framed structures) the distance between the load bearing elements should be carefully evaluated.

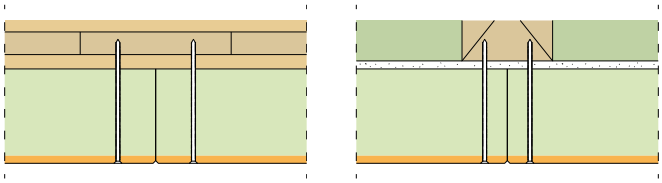
Fixing with mechanical fixings on reinforced concrete support

• Boards are directly fixed to the support with self-tapping mechanical fixings, DDS or DDS-Z
• The head diameter and wood wool structure simulation allow the camouflage of fixing in the texture of wood wool board
• Also suitable for application on discontinuous horizontal partitions, such as reinforced concrete slab with lightening element, after the verification of the distance between the load bearing elements (fixings must be positioned in correspondence of load-bearing elements not on the lightening elements)



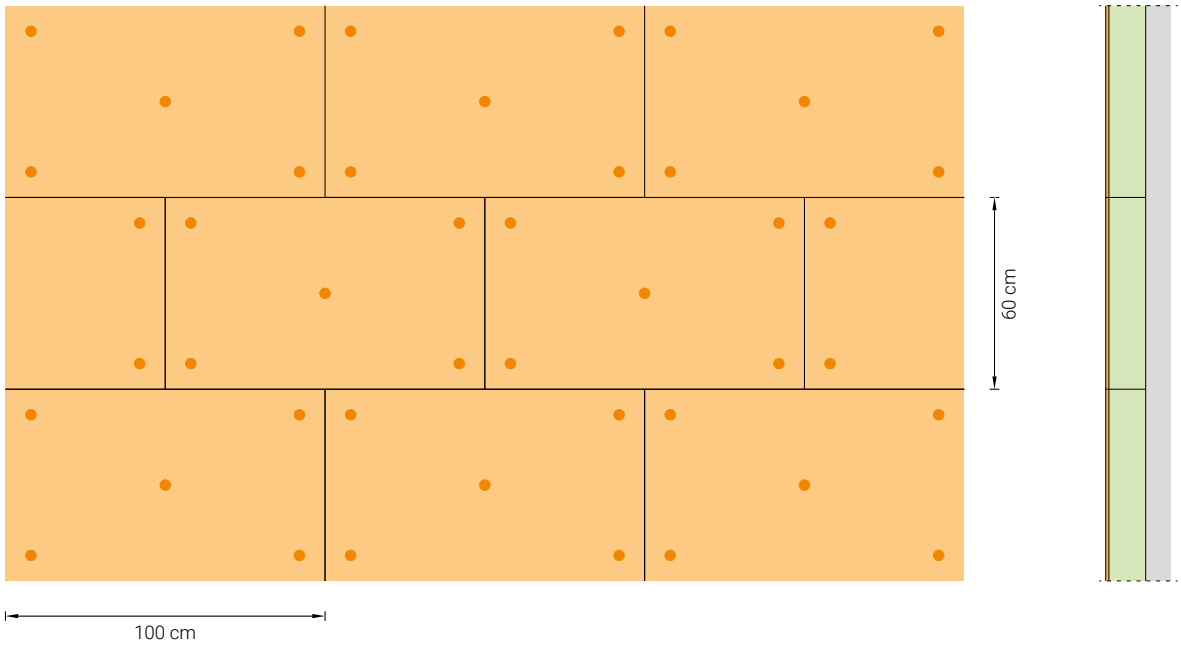
Fixing with screws on wooden support

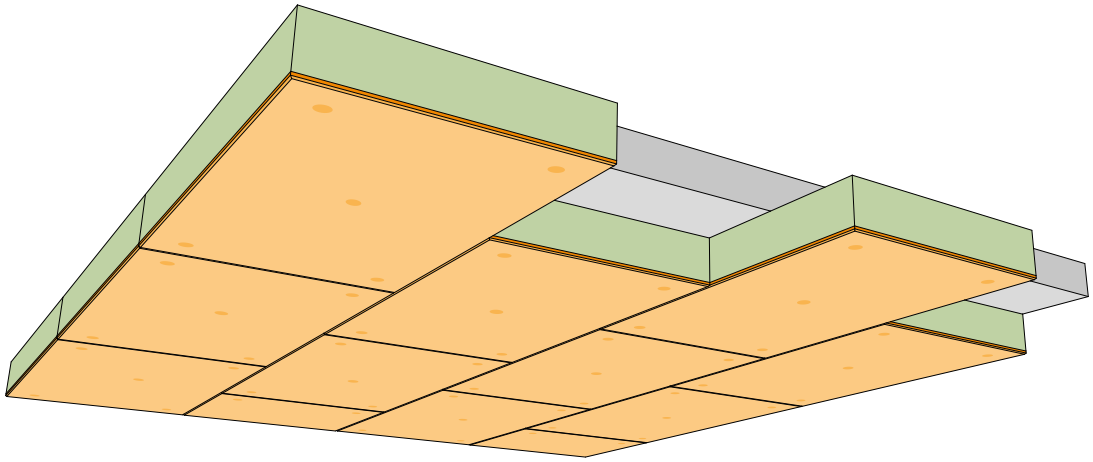
• Boards are directly fixed to the support with self-tapping screws with countersunk head
• The countersunk head allows to enter inside the thickness of the wood wool board, while the porosity of the panel allows the camouflage of fixings
• Also suitable for application on discontinuous horizontal partitions such as timber framed structures, after the verification of the distance between the load bearing elements where fixings must be positioned



Fixing with self-tapping mechanical fixings

on reinforced concrete





Accessories

DDS mechanical fixings

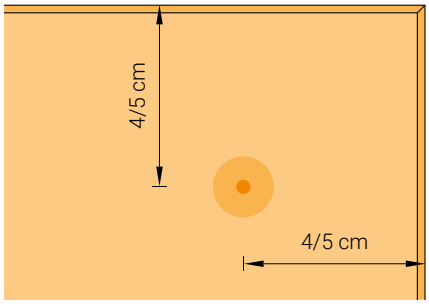
DDS-Z mechanical fixings

Fixing specifications

Boards are directly fixed to the support with self-tapping mechanical fixings, DDS or DDS-Z.
The hole has to be 30 mm depth and with a diameter of 6 mm; the depth penetration of the fixing has to be of 25 mm, therefore the DDS anchorage length will be determined by the thickness of the boards chosen.
The panels will be supplied with straight, shiplap or chamfered edges according to the aestethic needs. They can be painted after their installation.

! In reinforced concrete slab with lightening element boards must be fixed on the beams and not on the lightening element.

Panel thickness [mm]	Fixings height [mm]
≤ 50	75
> 50 ≤ 75	100
> 75 ≤ 100	125
> 100 ≤ 125	150
> 125 ≤ 150	175
> 150 ≤ 175	200



DDS

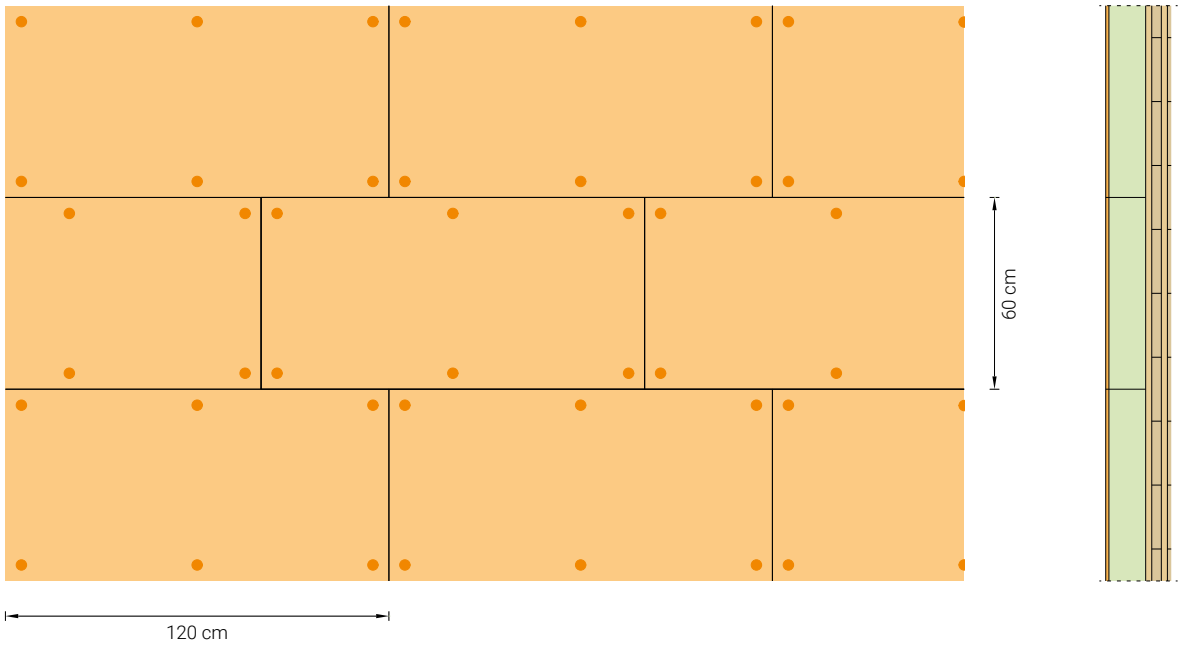
• Direct self-tapping screw for fixing on concrete
• Plastic injection moulded head with wood wool structure simulation
• Colors of screw head: white, beige (other RAL on request)
• Installation: drilling and screwing
• Head diameter: 25 mm
• Metal insert for fixing the screw: TORX T30

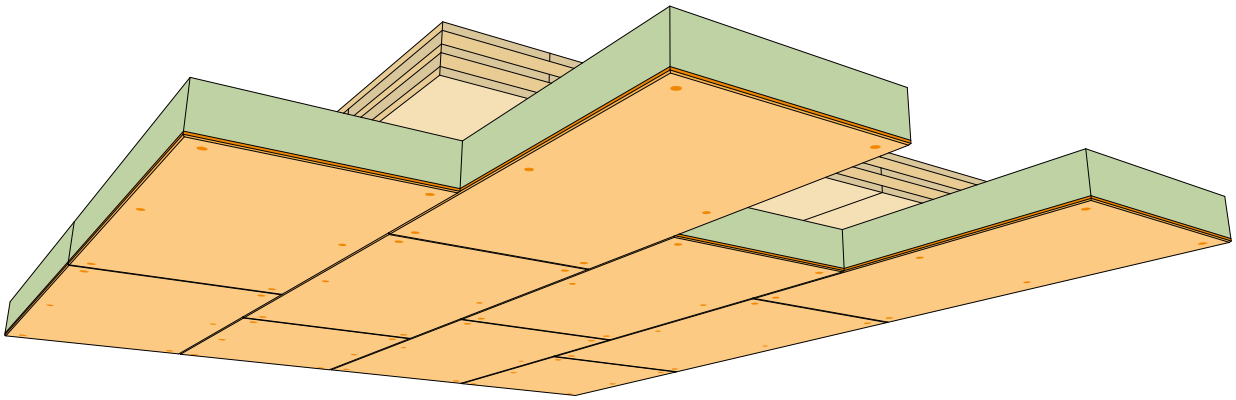
DDS-Z

• Direct self-tapping screw with corrosion resistance, for fixing on concrete
• Galvanized steel flat-head
• Colors of screw head: white RAL 9002 powder coated (other RAL on request)
• IInstallation: drilling and screwing
• Head diameter: 24 mm
• Corrosion resistance certification: C1-C3
• Metal insert for fixing the screw: TORX T30

Fixing with self-tapping screws

on wooden support





Accessori

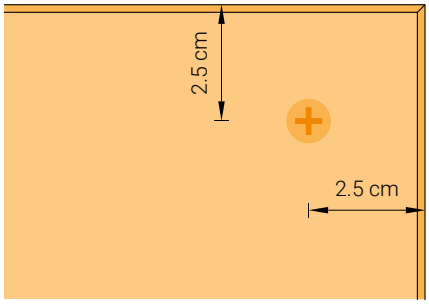
Self-tapping screw for wood
Countersunk head

Fixing specifications

Boards are directly fixed to the support with self-tapping screws for wood with countersunk head; the depth penetration of the fixing has to be of 40 mm. Screw length will be determined by the thickness of the boards chosen.
The panels will be supplied with straight, shiplap or chamfered edges according to the aestethic needs. They can be painted after their installation.

! We recommend to fix the screws with a slight inclination to give more tightness to the screws on the support.

Panel thickness [mm]	Fixings height [mm]
50	90
75	115
80	120
85	125
100	140
105	145
125	165
145	185
150	190
160	200
175	215

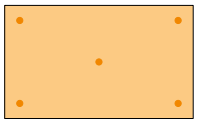


Self-tapping screw

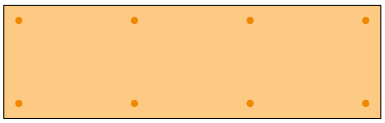
• Self-tapping screw for wood
• Countersunk head
• Material: stainless steel
• Installation: direct screwdriving without pre-drilling
• Depending on the thickness and weight of the panel consider the use of a washer to give more tightness

Fixings schemes

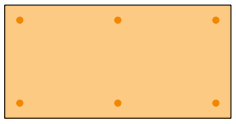
Fixing on continuous reinforced concrete support



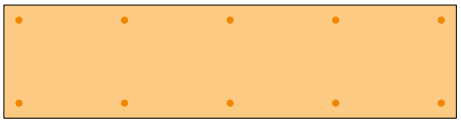
1000x600 mm - 5 fixings
Fixings scheme:
600x1000 mm + central fixing



2000x600 mm - 8 fixings
Fixings scheme: 600x667 mm



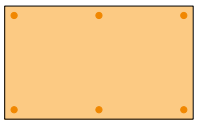
1200x600 mm - 6 fixings
Fixings scheme: 600x600 mm



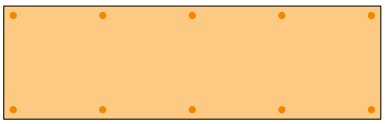
2400x600 mm - 10 fixings
Fixings scheme: 600x600 mm

Dimensions [mm]	Fixings per board [No.]	Fixings per m² [No./m²]	Fixings scheme [mm]	Fixing type	Fixings height [1] [mm]
CELENIT ACOUSTIC range					
1200x600	6	8.3	600x600	Self-tapping mechanical fixings for reinforced concrete (see page 5)	≤ 75
2000x600	8	6.7	600x667		
2400x600	10	6.9	600x600		
CELENIT MINERAL / CELENIT STYR ranges					
1000x600	5	8.3	600x1000 + central fixing	Self-tapping mechanical fixings for reinforced concrete (see page 5)	≤ 200
1200x600	6	8.3	600x600		
2000x600	8	6.7	600x667		

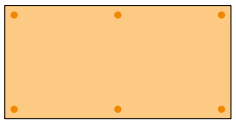
Fixing on continuous wooden support



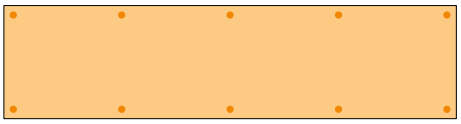
1000x600 mm - 6 fixings
Fixings scheme: 600x500 mm



2000x600 mm - 10 fixings
Fixings scheme: 600x500 mm



1200x600 mm - 6 fixings
Fixings scheme: 600x400 mm



2400x600 mm - 10 fixings
Fixings scheme: 600x600 mm

Dimensions [mm]	Fixings per board [No.]	Fixings per m² [No./m²]	Fixings scheme [mm]	Fixing type	Fixings height [1] [mm]
CELENIT ACOUSTIC range [2]					
1200x600	6	8.4	600x400	Self-tapping screw for wood with countersunk head (see page 7)	≤ 90
2000x600	10	8.4	600x500		
2400x600	10	7.0	600x600		
CELENIT MINERAL / CELENIT STYR ranges					
1000x600	6	10.0	600x400	Self-tapping screw for wood with countersunk head (see page 7)	≤ 210
1200x600	6	8.4	600x500		
2000x600	10	7.0	300x667		

[1] *Fixings length will be determined by the thickness of the boards chosen. See "Fixing specifications" at page 5 (reinforced concrete support) or page 7 (wooden support)*
[2] *Only for 25/35 mm board thicknesses. Evaluate the appropriate fixing scheme for board 50 mm thick*

Storage, use and maintenance

The boards must be stored on a pallet placed on a flat surface, protected from rain and direct sunlight.
Pallets must be handled with care on site. Bumping the corners of the pallets can cause damage to the boards.
For more information see the “Storage, use and maintenance” information available in the download area of the website www.celenit.com.

CELENIT boards are dimensionally stable (EN 13168), however, they must be installed after acclimating to the same room they are going to be installed in, as well as after all concrete works are finished and the doors, windows, heating and ventilation systems have been installed.

Room temperature must be kept constant before and after installation. Do not suddenly change the temperature of the room after installation.

General installation instructions

• The boards have one side that should be visible (front of the board) and another side that should be placed against the structure (back of the board). The back of the board usually has the CELENIT logo or shows calibration marks. The front may be painted and/or has worked edges. In the absence of paint or edges, the front can be identified according to the pallet layout: the front of the boards faces the top and the back faces the pallet.
• After the installation please follow the recommendations in the section “Storage, use and maintenance” at www.celenit.com.

09/2018 - ed. 02 rev. 00