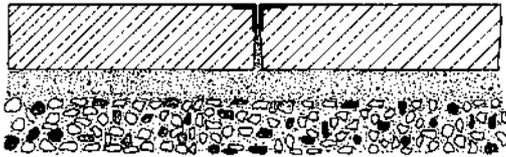


Leaflet for installing STELCON slabs ¹⁾ on compressed substratum



- 1 = STELCON slabs
- 2 = final grade (3-5 cm)
- 3 = substratum (appr. 30-40 cm)

1. Substratum (client's responsibility)

- 1.1. Requirements for installing STELCON slabs are a substratum or foundation on the building site that has been well-compressed using proper techniques provided by the client. If the substratum or foundation is not sufficiently compressed, the layers placed on top of it may later settle unevenly, which can result in a need for further adjustments or negatively affect the slabs' load bearing capability.
- 1.2. After compressing the upper, approximately 30-40 cm-thick layer with a plate vibrator, an EV_2 -value of $\geq 120 \text{ MN/m}^2$ with a Proctor density of at least 98-103 % must be attained by the client at the building site.
- 1.3. On heavy load-bearing surfaces, e.g., SLW 60 acc. to load diagram DIN 1072 (wheel loads 100 kN) as well as for stacking grounds with surface loads of $\geq 150 \text{ kN/m}^2$, more extensive measures are required. This requires special individualised agreements. The site's load bearing capability must be inspected by the client by means of load plate pressure tests before any installation work is begun.
- 1.4. The client should also ensure sufficient water drainage at the building site.
- 1.5. The height of the substratum or foundation is: UE of floor covering less the thickness of the STELCON slabs and 3-5 cm final grade.
- 1.6. To ensure the precise height, the client should set up unchangeable height indication points on-site. In addition, the client is responsible for installing a sufficient quantity of pegs indicating the height.

1) If slabs with frames have joints sealed with polysulfide or a similar material, this must be communicated in written form to STELCON when the order is placed, since the frames need to be brought to the site in an untreated form.

2. Final grade

- 2.1 The final grade, which should have a thickness of 3-5 cm, is composed of 2/5mm of fine crushed gravel aggregate or, with the corresponding foundation (e.g., HSL: hydraulically bound support layer), 2/8mm of gravel sand. Chips should be used for the fine level in halls, since sand beds can dry out in heated halls and tend to produce dust. This is not a problem for sealed joints.
- 2.2 Heavy load-bearing surfaces – like those described in 1.3 – must absolutely have a final grade of 2/5 mm of fine crushed gravel aggregate 2/5 mm.
- 2.3 If the final grade is higher than 3 cm, it should be compressed further by means of a plate vibrator.
- 2.4 For a 100 m² surface, appr. 5-6 m³ of sand or chips are needed (this also takes the material needed for sweeping into the joints).
- 2.5 The evenness of the final grade must comply with DIN 18202, table 3, line 2.

3. Installation and joining

- 3.1 STELCON slabs are usually installed according to an installation plan.
- 3.2 Suitable installation equipment includes forklifts or wheel loaders that are equipped with a traverse and lifting system. Slabs without lifting holes are laid with a vacuum device.
- 3.3 Individual slabs are set down horizontally onto the prepared sub-layers. Joints with a width of 5 mm (slabs with frames) or 15 mm (slabs without frames) should be created. These joint widths are attained by means of spacer blocks of the appropriate thickness.
- 3.4 After being laid, the slab's position should be adjusted using a broad spade. Never use crowbars, wedges, or similar tools for this repositioning (can chip the edges!).
- 3.5 The final grade is designed to compensate for unevenness in the substratum. However, under certain circumstances, it may still be necessary to make further adjustments to the slabs to ensure full surface contact. Appropriate methods should be used to verify full surface contact, e.g., knocking on the surfaces (e.g., using the head of a paving crowbar with a Ø 70-80 mm head).
- 3.6 Finally, the joints must be filled to the top of the slab's upper edge with fine crushed gravel aggregate with a grain size of 2/5 mm.
- 3.7 Also it may be helpful to break-in the new surfaces by driving vehicles of the appropriate load over them. This increases the degree of compression during the installation process itself.

4. Additional tasks for liquid-sealed surfaces

- 4.1 To produce a liquid-sealed surface using polysulfide or similar to seal the joints, the filled joints must be sucked or blown out by qualified specialists to a depth of max. 45 mm from the slab's upper edge (see above drawing).
- 4.2 This joint sealing is only possible at exterior temperatures of 5°C or above. As per the requirements of the sealing material, the joints must be sufficiently dry and free of dust, etc.
- 4.3 Immediately after sucking/blowing, the sealing profile, e.g., made of polyethylene, should be put into place.
- 4.4 The joints should then be sealed according to the requirements of the given sealant. In facilities subject to the Water Resources Act (WHG §19 / German law for protection of the groundwater), the requirements of the general building regulations of DIBt Berlin must be observed.

5. Maintenance (client's responsibility)

- 5.1 To ensure that the slabs maintain a firm position over the long-term, it may be necessary to refill or reseal the joints on-site after a certain period of time.
- 5.2 Those who operate facilities subject to the Water Resources Act (WHG §19 / German law for protection of the groundwater) are legally required to inspect the surface regularly; e.g., monthly inspection by the operator's own personnel or by other qualified inspectors.

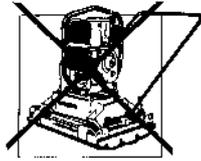


Installation with appropriate laying device system



Installation with appropriate traverse and lifting

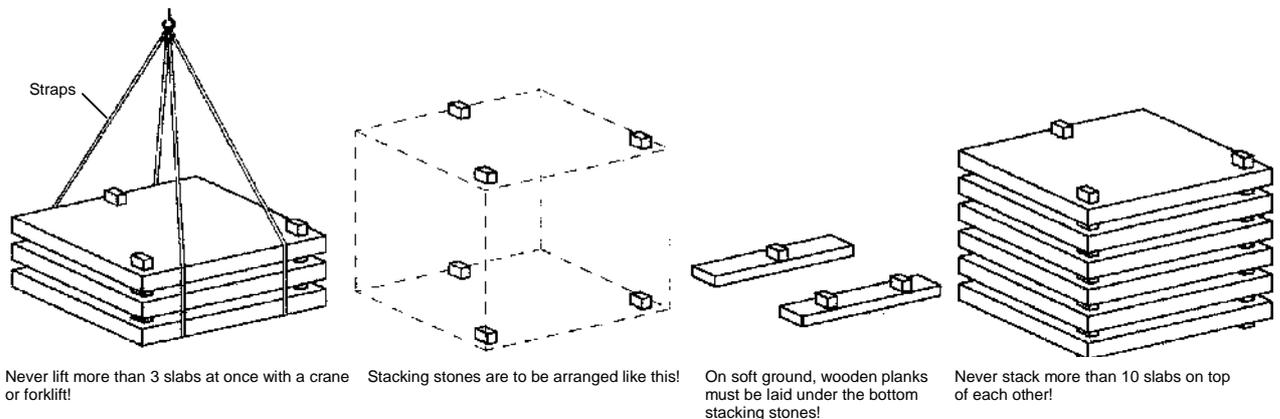
Attention!



Do not drive rollers or plate vibrators on the plates.

Please use spacer blocks and an appropriate laying device to avoid breaking edges.

This is how to stack STELCON slabs:



Never lift more than 3 slabs at once with a crane or forklift!

Stacking stones are to be arranged like this!

On soft ground, wooden planks must be laid under the bottom stacking stones!

Never stack more than 10 slabs on top of each other!

The manufacturer assumes no liability for damage incurred by improper handling by a third party!