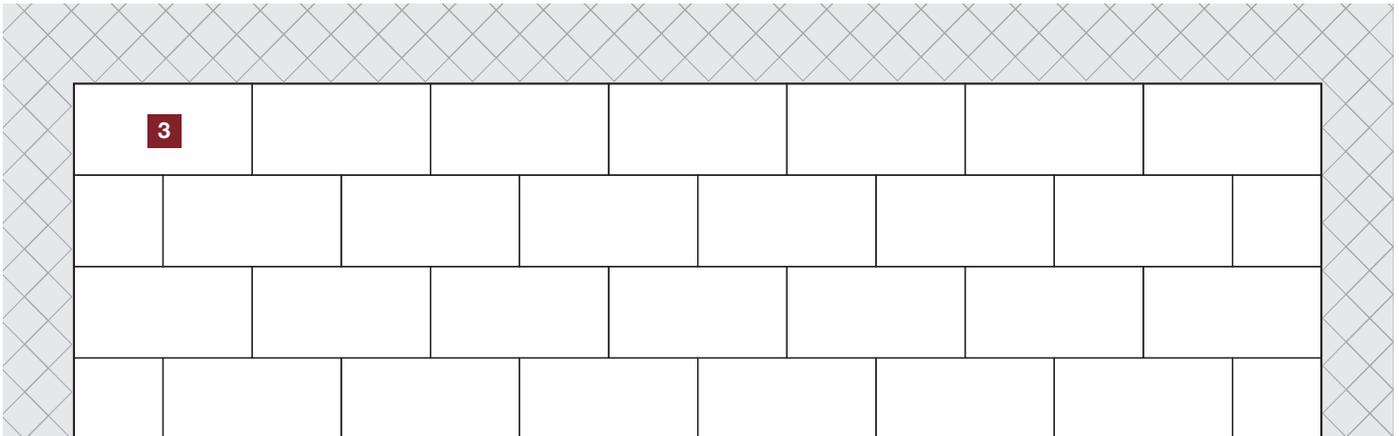


## Type ES and EL thermal insulation boards

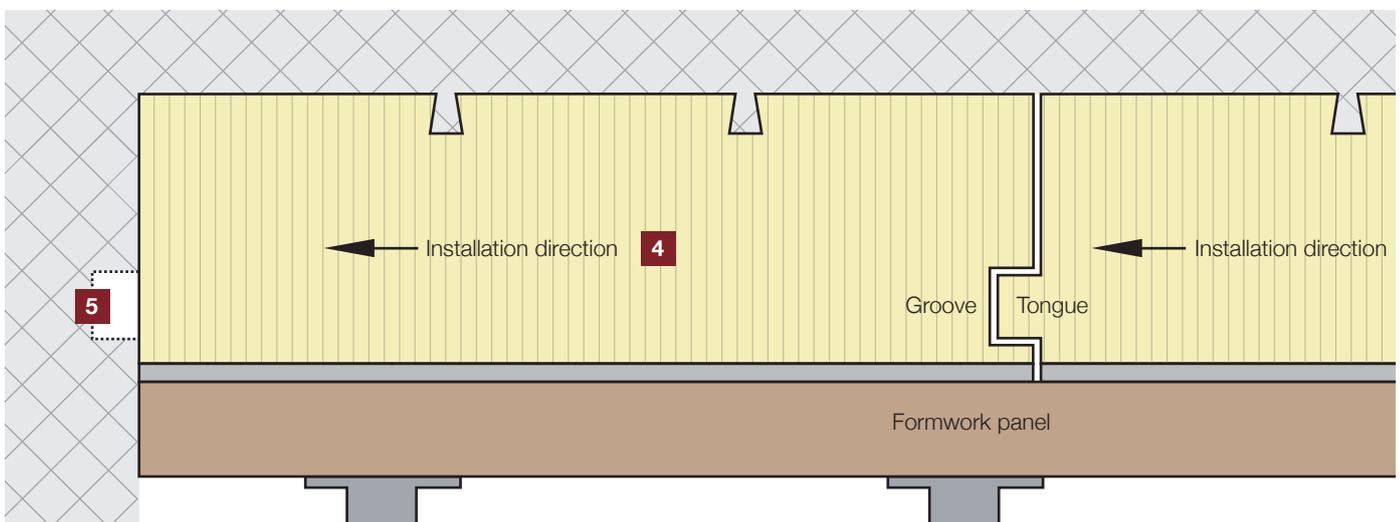
### 1 Creating the ceiling formwork

Perfect ceiling formwork is a prerequisite for a perfect result. The ceiling formwork can be slightly loosened (maximum 4 cm). It must be installed without ledges and free from oil and solvents (risk of staining!).



### 2 Cleaning the formwork

Prior to installation, the ceiling formwork must be cleaned with a brush to prevent any residue like insulation residues, grains of sand or similar beneath the boards.



### 3 Determining the installation layout

Determine the installation layout observing adaptations to parts and keeping the loss of material through cutting to a minimum. We generally recommend English bond. With this method, a whole board is used for the first strip and the first board halved with the second strip. The resulting leftover board can be used at the end of the strip in most cases. This type of installation results in a perfect bottom view, and small dimensional differences that may occur during installation are not visible.

### 4 Observe the installation direction: work "tongue in groove" (GROOVE ← TONGUE)

Always work "tongue in groove" to prevent any dirt from depositing beneath the tongue that may prevent a closed joint. It is especially important to always start with the tongue pointing towards the outer wall. A different kind of installation may lead to protrusions of the joints on the surface that are visible later on and cannot be corrected retrospectively.

## **5 Wall connection**

Cut off the tongue lengthwise and at a right angle from the thermal insulation. Push the board with the blunt side flush to the wall. Also cut off the tongue on the next boards (wall connection), and align further boards lengthwise so that they are flush.

## **6** Cut the last board of the strip in such a way that the boards are flush against the wall without clearance.

Use the rest of the board to start the next strip.

## **7** Fill wall connections, electric outlets, other cut-outs and installations with insulating foam to prevent any penetration of cement water and the formation of thermal bridges.

## **8** Mask the board joins if necessary to protect the surface from penetrating cement water.

### **Installing spacers and reinforcement**

Install a sufficient number of reinforcement spacers for the iron reinforcement.

### **Tools**

For division on site, we recommend using chrome or carbide tipped wood saws or an angle grinder designed for stone. For detail work with jigsaws, use saw blades with coarse teeth or chrome or carbide tipped jigsaw blades. Fibre cement boards must be drilled with standard power drills at high torque. Fine dust with an elevated dust weight is generated during work. Although the dust does not contain any substances that may be hazardous to health, we recommend wearing a fine dust mask.

### **Cleaning**

The surface can be cleaned with a high-pressure cleaner.  
Only use solvent-free and non-aggressive cleaning agents.

### **Transport**

Crane transport should be performed with a pallet fork only.

### **Delivery**

Delivery of the exact quantity on single-use pallets wrapped with stretch film.