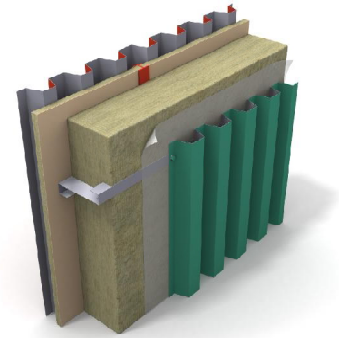
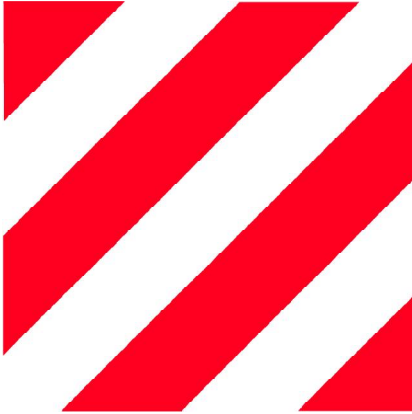


# Industrial Walls

## Design and Handling Guideline

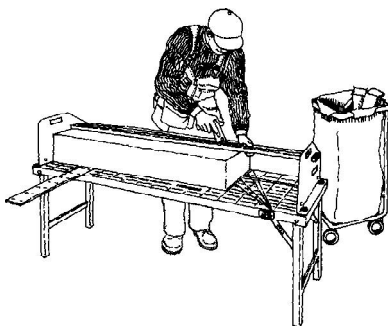


### General instructions for insulating work

#### Cutting

When cutting insulation sheets, a Paroc knife and a straight edge or a cutting table are used. When a lot of cutting is required, cutting tables are excellent tools that allow you to achieve the correct angles.

Cutting boards can be quickly adjusted to other sizes and angles. PAROC UNS products are fitted between beams and studs with an overhang of 5-10 mm so as to obtain a good filling without any cracks or gaps.



The overhang is important for the function of the structure, both in terms of heat insulation and fire safety. Avoid using small pieces, (200 mm), as this will increase the risk of gaps occurring. The thickness of the standard sheets can be adapted to the standard measurements of the timber. The width can be adapted to the stud distance in question.

#### Filling

The insulating function will be affected by how well the space to be insulated has been filled. The most important thing is for the insulation to lie well against the warm side of the structure. Continuous gaps on the warm side of the insulation should therefore be avoided and above all the insulating function will be significantly reduced if these gaps make contact with the cold side.

#### Handling and storing

Insulation is a very important product for buildings and should therefore be handled with great care so as not to jeopardize its functioning. Storing on site until the time it is

to be fitted should therefore be carefully planned. The totally sealed plastic packaging protects the product against temporary weather stresses. The insulation should always be covered when stored outside for longer periods. The packages are stowed so that the sheets stand on their edges. If the insulation becomes damp, the packages should be opened and the sheets dried indoors before they are fitted into the structure. Never fit wet insulation. In case the insulation gets wet after fitting, it should not be installed until it has dried, unless it doesn't make contact ventilated air gap.

### Insulating an Industrial wall

#### Wind protection

The wind protection can either be a PAROC WAB 10t, a structural board, or a foil and are chosen in accordance with national requirements or our recommendation described in Ventilated Walls - Design principles. Corners are often a critical point in a wall construc-

tions and special care must be taken in order to avoid cold air intrusion into the main insulation. When using PAROC WAB 10t as wind protection we recommend the use of a vertical air tight layer in the corner. This could be made as an additional layer of a structural board, paper or foil between the PAROC WAB 10tt and the UNS product approximate 1 meter on each side of the corner

### Air-/Vapor barrier

If the building is build for normal indoor air conditions with high humidity and/or temperature an air and vapor barrier, for example a 0,2 mm PE plastic foil, should be installed properly on the warm side of the wall.

### Cold bridges

Using a main insulation of UNS products in combination with a fully-covering layer such as PAROC WAB 10t means that the cold bridges breaks down and the thermal properties of the wall will be improved.

### Assembly

The best installation will be achieved if the primary UNS insulation is fitted from inside the wall structures. The heating should not be started until the air and vapor barrier have been installed.

This will avoid the unnecessary transportation of water vapor through the structure to possibly condense against the outside of the wall. The fully-covering PAROC WAB 10t insulation is fitted to the frame with 50 mm long metal screws and PAROC Metal Washers according to the *figure 1*.

Try to fit the joints to the frames. The WAB products should be

pressed or glued together in order to avoid air leakage trough the joints.

Using PAROC H-profile is also a method to secure the air tightness. The profiles should be installed in all vertical joints in fields. The profile is turned onto the board with the widest flange into the wall. After that next board is putted into the profile. See *figure 2*. The sheet metal or similar is finally fitted on the outside of the wall according to the sheet metal manufacturer instructions.

### Water dispersion

Any water leaking behind the façade material must be dispersed using either a sheet of metal or board mounted over windows, doors and by the seating. See *figure 1*.

### Effect of moisture

Sheets of stone wool are not significantly affected by moisture. Stone wool does not absorb water in a capillary way and does not absorb moisture from the air. The moisture that can infiltrate the outer layer during the building stage, e.g.

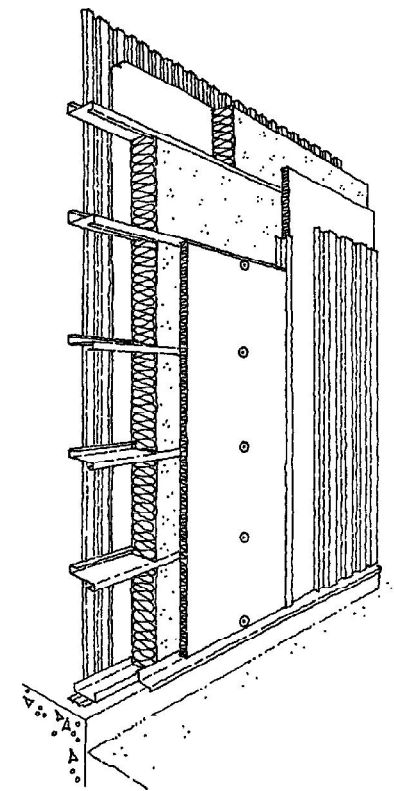


Figure 1.

from heavy downpours of rain, quickly dries away without causing damage. This means that the insulation layer can be left unprotected against weather during some of the building stage, for example during the winter whilst waiting for the walling up of the façade layer.

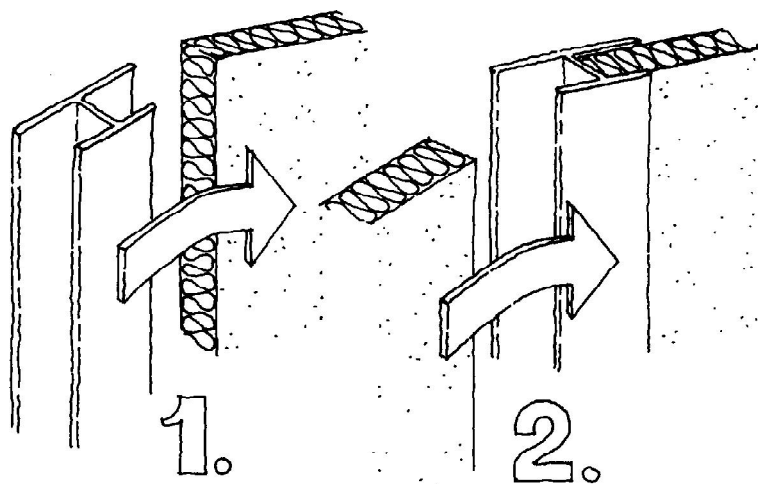


Figure 2.