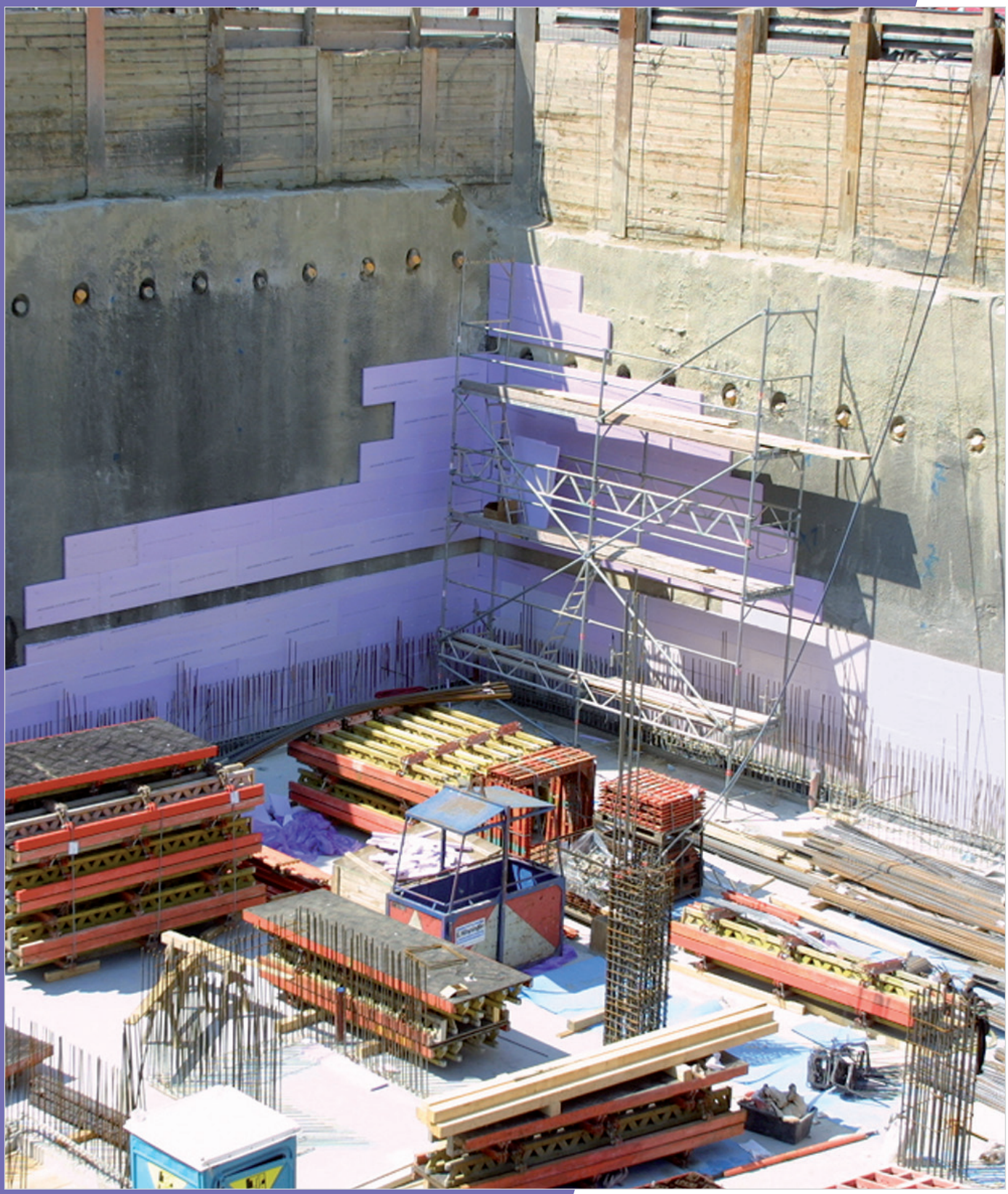
JACKODUR®

Perimeter insulation.



Installation instructions

JACKON by BEWI

General information

JACKODUR® thermal insulation made of extruded polystyrene foam (XPS) is particularly suitable for perimeter insulation. Thanks to its closed cell structure, JACKODUR® is moisture-resistant and therefore ideal for insulating structural elements that are in contact with the soil. The thermal insulation is always laid in a single layer in the perimeter area because when there are multiple layers of thermal insulation boards, a slow but continuous accumulation of water can lead to heat losses.

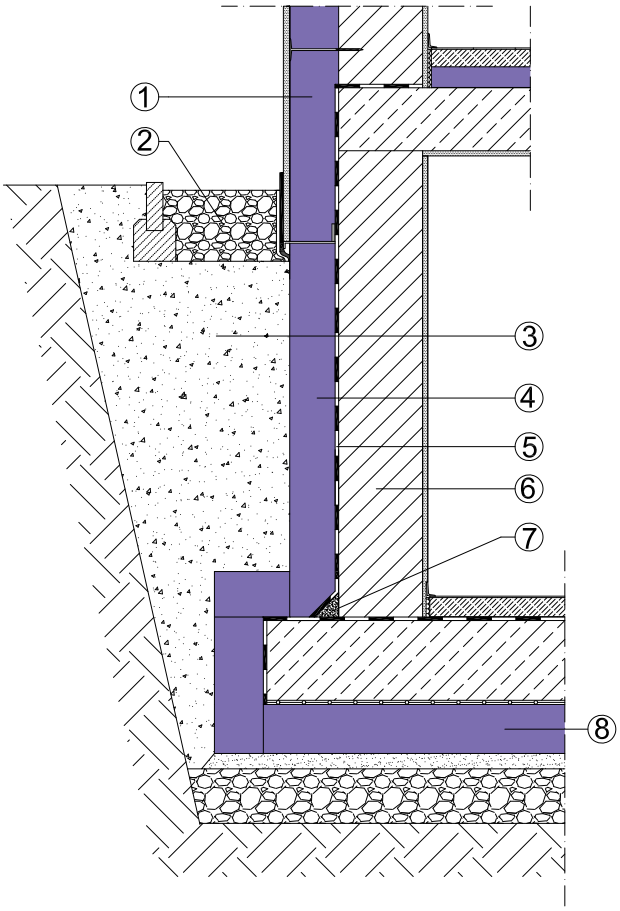
The prerequisite for laying insulation boards as perimeter insulation is the professional execution of the waterproofing of the building in accordance with DIN 18195. The structural elements which are in contact with soil can also be constructed from waterproof concrete in accordance with DIN 1045. However, perimeter insulation does not replace the need for the building to be waterproofed!

The maximum installation depth of JACKODUR® in the perimeter area merely depends on the horizontal earth pressure of the soil layer (earth pressure at rest). When using JACKODUR® KF 700 Standard, installation depths of up to 23 m are possible even in poor soil conditions (e.g. silty sand).

A solid contact surface must be present at the base point so that when backfilling, the extruded foam boards are prevented from slipping. The bonding to the waterproofed basement wall is a temporary "installation bond" which holds the boards in position until the trench is backfilled.

JACKODUR® Perimeter insulation of basement retaining walls

① Plinth insulation with JACKODUR® Geniniert
② Filter gravel 16/32 grade
③ Backfill
④ e.g. JACKODUR® KF 300 Standard
⑤ Building waterproofing layer
⑥ Masonry
⑦ Channel
⑧ JACKODUR® KF 300/500/700



Laying JACKODUR® against basement retaining walls in areas with soil moisture or non-standing seepage water

The JACKODUR® thermal insulation boards are laid tightly against one another in a bond and spot glued to the existing building waterproofing layer. JACKODUR® perimeter adhesive foam, for example, or solvent-free cold applied bituminous adhesive or thick bitumen coating can be used as the adhesive. Shiplap boards are particularly suitable to prevent thermal bridges. The insulation layer provides thermal insulation for the building and also protects the waterproofing from mechanical influences.

Evidence of buoyancy control in groundwater is deemed to be provided if:

- the insulation boards are glued to the substrate all over
- when using a thermal board thickness of maximum 320 mm, the highest water level reaches 1 m beneath the top ground surface at most
- when using a thermal board thickness of maximum 200 mm, the highest water level reaches 0.5 m beneath the top ground surface at most
- the uppermost row of boards is anchored in the plinth area or they are attached to single-leaf vertical masonry

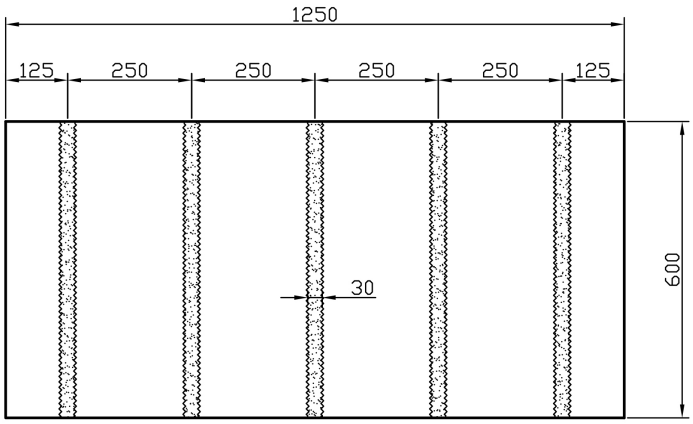


Figure: Application of adhesive with JACKODUR® perimeter adhesive foam in strips approximately 250 mm apart.

Photo: Installing perimeter insulation in pressing water (groundwater)

Laying JACKODUR® against basement retaining walls in areas with standing seepage water or pressing water

To prevent water from dripping behind the thermal insulation boards, the JACKODUR® thermal insulation boards must be glued all over to the existing building waterproofing or waterproof concrete using a solvent-free cold applied bituminous adhesive or thick bitumen coating. The side board edges must also be filled with a solvent-free cold applied bituminous adhesive or thick bitumen coating.

The shiplap thermal insulation boards are laid tightly against one another in a bond with staggered joints; they may only reach up to 3.5 m into the groundwater. Adequate buoyancy control may already be present due to direct connection to a composite thermal insulation system or single-leaf masonry.

Backfilling the trench

The trench should be backfilled and the soil compacted in layers. The soil that was excavated can normally be used for this. If damage cannot be ruled out during backfilling, an even, mixed-grade sand-gravel mixture should be used, or if necessary, protection should be installed prior to backfilling.

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Note
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