

Technical Information for the Construction Industry #3

RÖBEN CLINKER BRICK SLIPS AS LIGHTWEIGHT EXTERIOR WALL CLADDING FOR STUD FRAMES



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Röben clinker brick slips can also be used as a “lightweight exterior wall” in metal and timber frame construction. The robust, non-combustible “Aquapanel Cementboard Outdoor” panel is the ideal substrate for the brick slips. Depending on the application, the exterior can be finished with either direct-planked or rear-ventilated wall systems.

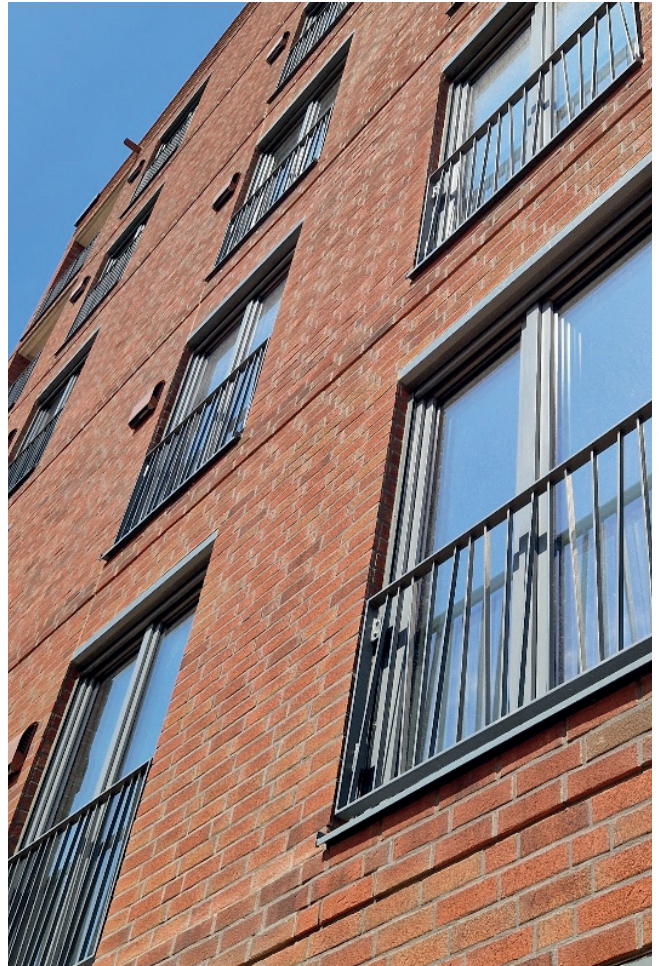
Knauf Aquapanel provides weather protection and serves as a base panel for Röben clinker brick slips. It forms a solid substrate that can withstand extreme weather conditions and offers a high degree of design freedom. Concave, convex, and sloping facades are possible. The possible uses of this exterior wall are diverse. It is particularly suitable for skeleton constructions made of reinforced concrete, steel, or wood.

Sustainability and design

The ceramic cladding made of Röben brick slips gives the façade natural, low-maintenance all-round protection. The lightweight construction means that less building material is required. The wide range of colors, shapes, and surfaces of the brick slips, in combination with other materials, allows for a variety of design options.

✓ Technical data

The maximum permissible load per square meter for brick slips is 40 kg, which is not usually exceeded by Röben products. The maximum dimensions of the brick slips are limited to an area of $\leq 0.12 \text{ m}^2$ and a side length of $\leq 0.40 \text{ m}$. The installation is carried out in accordance with DIN 18 515-1, whereby the brick slips are applied exclusively using the combined method (floating-buttering) in accordance with DIN EN 12 004 and then grouted.



Aquapanel Cementboard Outdoor is attached to vertical studs. The substructure must be selected in accordance with the structural requirements. Depending on the requirements, single-layer or multi-layer cladding can be used.

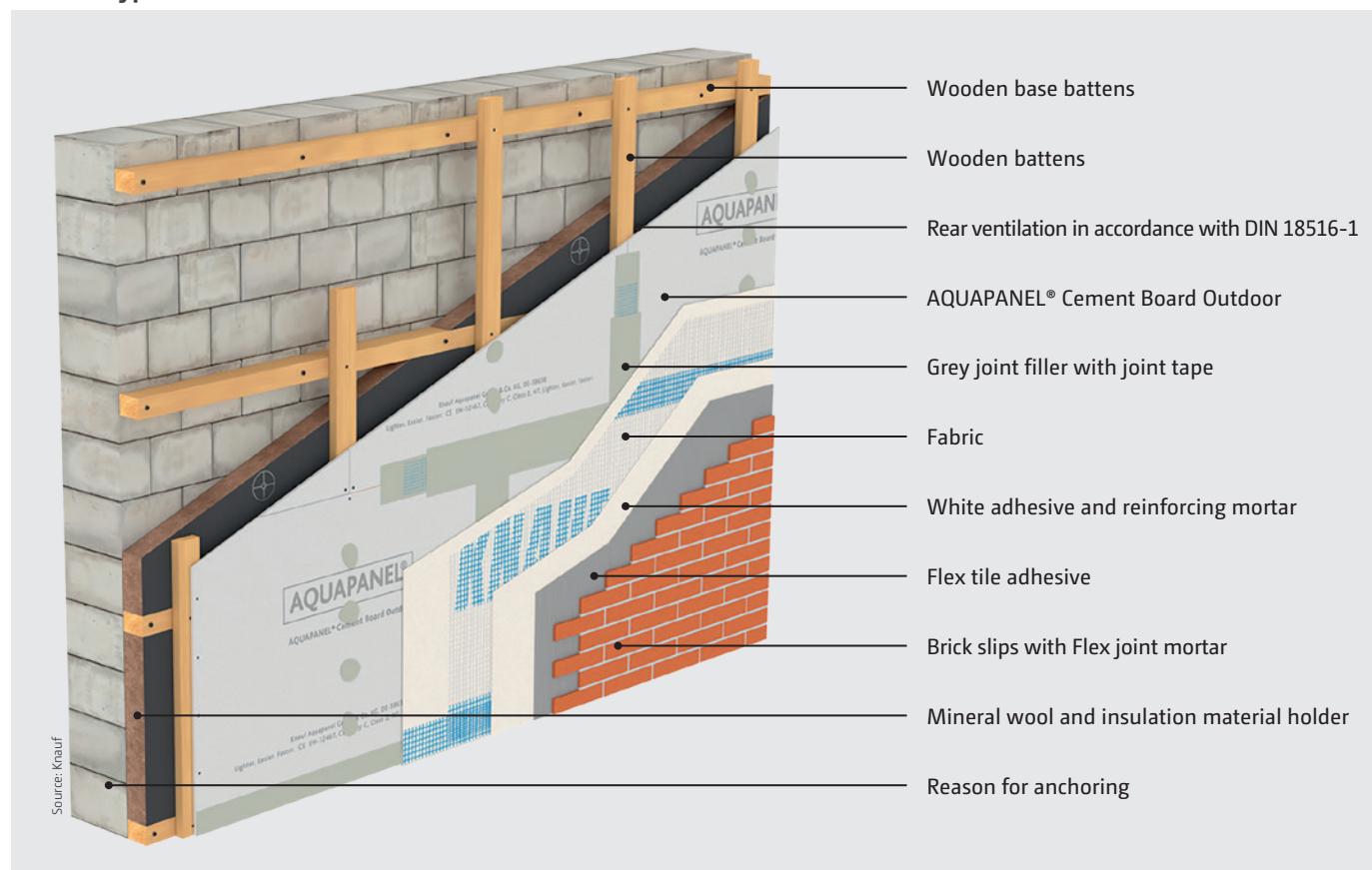
The non-combustible mineral carrier board (fire class A1), consisting of a Portland cement core and aggregates, is reinforced on both sides with glass fiber mesh.

It is fastened horizontally to the substructure or aluminum frame with screws without pre-drilling. The joints between the boards and the screw heads are filled with joint filler and a fabric insert.

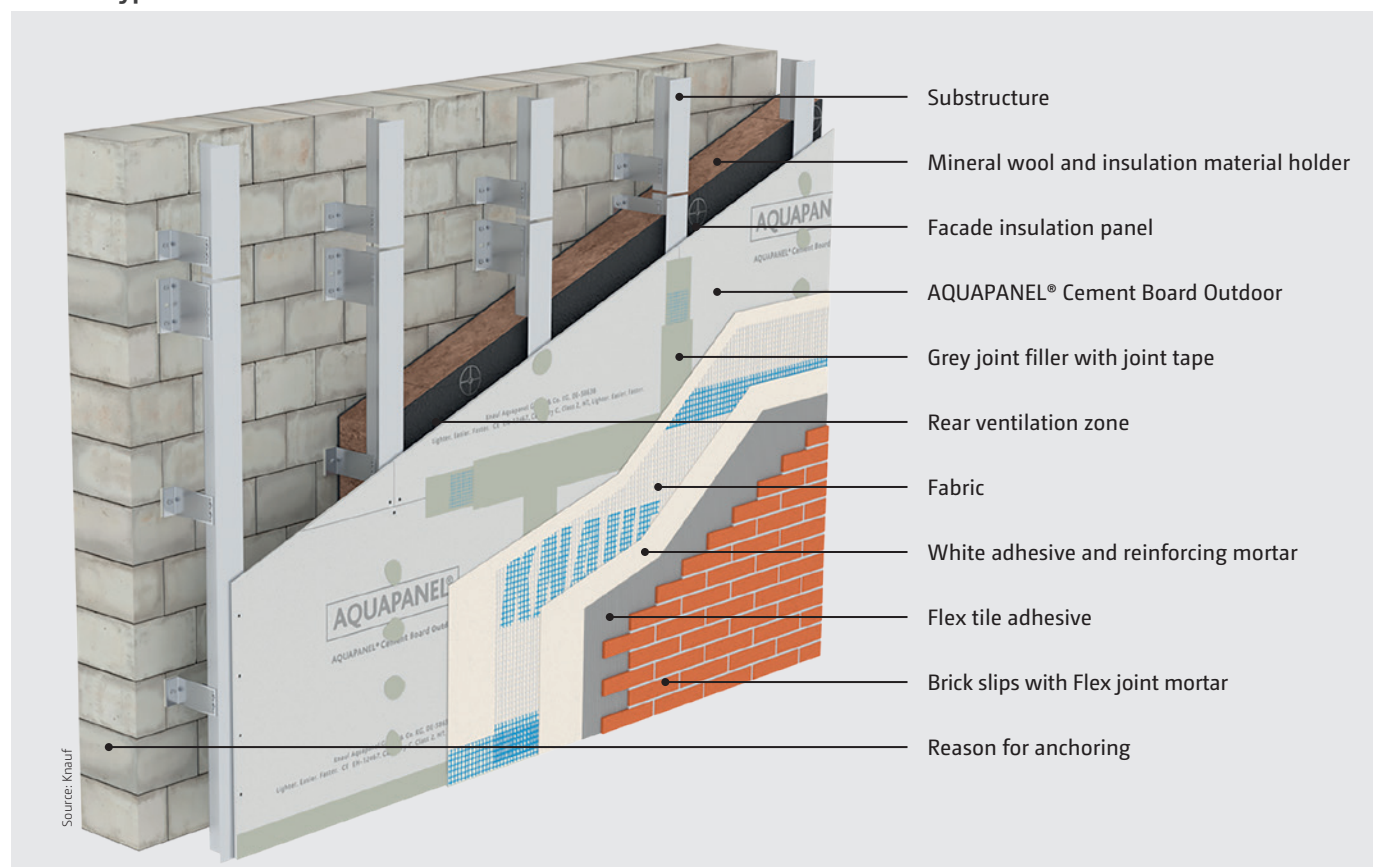
The adhesive and reinforcing mortar with fabric insert is then applied. After the appropriate setting time, the brick slips are applied. All materials used must be system-compliant and must be compatible with each other.

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Curtain-type rear-ventilated facade with wooden substructure



Curtain-type rear-ventilated facade with metal substructures

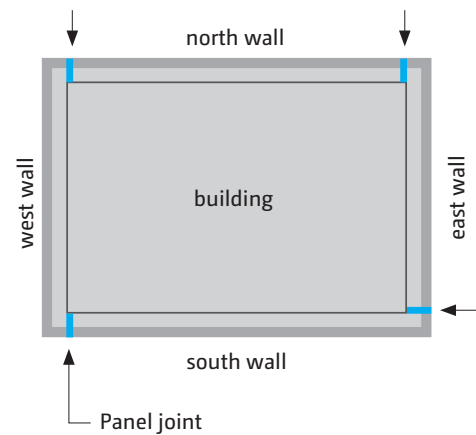


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Panel joint

Panel joints are required for cladding with brick slips and allow the brick slip covering to move freely. These joints must divide the facade surfaces into sections to ensure stability. This requires planning the arrangement of the panel joints in each individual case.

A vertical panel joint should be provided at each external corner of the building, preferably at a distance of approx. 20–25 cm from the corner. It is recommended that the joint be constructed taking into account the direction of the sun, as the intensity of solar radiation is not the same on all facade surfaces and therefore different thermally induced deformations may occur.



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