Assembly Instructions

Light Oppdal and Offerdal quartzite

Slate bricks allow you to create exciting and beautiful facades that suit everything from rustic mountain cabins to modern functional houses. Light Oppdal slate has visible edges that are almost completely smooth and which have beautiful colour variations in soft shades while Offerdal have dark grey shades. Both withstand the harshest climates and last forever without maintenance.

DRYWALL

TECHNICAL DATA

Geology:	Scandinavian metamorphic rocks, 750 and 650 million years old
Quartz content:	39 - 46 %
Flexural strength:	35,6 – 44,8 MPa
Water absorption:	0,1 - 0,2 weight %
Unit weight:	2700 kg/m³ (1 m² dry wall of slate D: 10 - 20 cm = ca 405 kg)

LOW CARBON FOOTPRINT | FROST PROOF | MAINTENANCE-FREE | REUSABLE | SALT/ACID-PROOF

SLATE PRODUCT

Slate type: Light Oppdal quartzite, Offerdal quartzite
Surfaces: Drywall slate bricks
Edges: Natural (not processed)
Format: 4 sizes (Small, Medium, Large, Extra large) within min/max:
D: 5 - 45 cm, H: 4 - 20 cm, L: 15 - 70 cm
Delivered in a big bag standing on a pallet

→ The most common size for facade cladding is medium-sized bricks (depth: 10 - 20 cm, minimum length: 18 cm, minimum thickness: 4 cm).

CALCULATION OF SLATE QUANTITIES

For facades with a lot of alleys, angles, etc., allow extra to cover the actual area.

CHOICE OF SIZE

Small bricks are mostly used for cladding where space is limited and where lower weight is essential. Medium bricks are the most applicable and preferred size and very suitable for facade cladding due to its stability and aesthetic expression. Large bricks are solid and used where there are no restrictions in terms of space or weight like outdoor retaining walls. Extra large bricks are used for outdoor walls and, due to their large format, must be laid with a machine.

WEIGHT

The slate's specific weight is 2700 kg/m³. 1 m² slate wall in medium-sized bricks (depth 10 - 20 cm) weighs approx. 405 kg (approx. 550 kg including back casting in concrete).

2700 kg/m³ x 1 m² *x 0,150 m = 405 kg/*m²

CONSTRUCTION

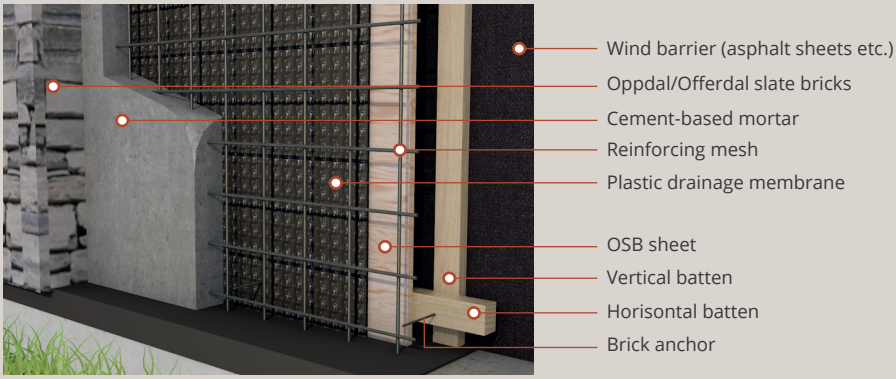
The drywall is stacked on the foundation and stabilised with mortar at the back edge, as well as mesh reinforcement and brick anchors.

a. Wind bracket panels and battens
On the outside of the wind barrier (asphalt sheets, etc.) vertical battens are installed approx. 20 mm above the foundation to prevent capillary suction and ensure aeration. Horizontal wooden battens are installed on the outside of the vertical battens (recommended size 23 x 48 mm).

b. Air gap
OSB panels are mounted on the outside of the battens. Drainage of any moisture must be inserted in the air gap between the wind barrier and OSB panel. This consists of a 22 mm draft pipe (electrical pipe) which is laid out hidden between the slate at the bottom of the dry wall and bent up behind the cross batten.

c. Foundation plastic/knob plastic
As a cover between the backing cast and OSB sheets, install a layer of base plastic/ roofing felt etc.

d. Reinforcement mesh
The mesh is installed with reinforcement rafters (spacers) against the plastic felt.



SLATE ASSEMBLY

PREPARATION
Set up a guideline to brick after and lay out the slate to get an overview of the selection; set aside potential cornerstones and sort by height.

THE BRICK WORK
The slate is brick bonded, i.e. the vertical line is broken. The horizontal line of the brickwork should also be broken after about 3–5 bricks.

SLATE ADJUSTMENT
You will need to adjust the height of certain bricks during the process. This is done by splitting the brick into its natural split layer with a hammer and chisel.

Stones that are too wide or that have a sloping edge should always be split one or more times to even them up.

However, the brick should not be cut lengthwise, but should be used as it is. When cutting to length, there is a great risk that the stone will split itself into the split layers at the same time. If you have to split a stone, we recommend using an angle cutter - either all the way through or to make a cut for subsequent breaking (same principle as for cutting glass).

MASONRY
The slate is laid without joints, but with a backing cast to bind the brickwork together, as the slate varies in depth. Suitable mortar for anchoring/stabilising the drywall is important; a quick-drying cement-based mortar is recommended. In order to make backing casts lighter in terms of weight, it may be possible to apply 30 % Leca balls.

Brush off the back of the stone so that the mortar binds well and lay out one or a few shifts of bricks. Screw in the nuts in the construction; 4 nuts per m2 is recommended. Then fill up with backing casting. NB: Do not brick too high before applying the back cast, as this risks the lower shifts slipping. It is best to fill the back cast frequently to achieve the most stable masonry. By using fast-setting mortar and frequent backfilling, you will be able to lay continuously without interruption.

As a finishing point on the wall, fittings or coverings should be installed to prevent water from entering the construction itself.

Slate covering