Assembly Instructions

Light Oppdal and Offerdal quartzite

This is the cost-efficient facade in terms of both the product and the fixing method. The method results in only a small proportion of overlapping slates. The facade is extremely easy to fit and can be installed by building contractors without specific expertise. Our slate's technical properties make it very suitable for facade panels. The slate builds little and the system can therefore be used on most buildings – old and new.

FACADE HORIZONTAL

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 facade w/overlap, W: 40 cm, T: 15 mm = 47 kg)

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

SLATE PRODUCT

Slate type: Light Oppdal quartzite, Offerdal quartzite
Surfaces: Natural, antique brushed, silk brushed
Edges: Sawn, hewn
Format: Optional sizes in fixed or falling lengths within min/max:
H: 200 - 600 mm, L: 300 - 1200 mm, D: 10 - 30 mm
Different widths and lengths can be combined

→ For mounting with screws, the slates are delivered with 8 mm holes positioned 30 mm from the top edge and with a max central distance between holes of 40 cm.

Mounting with hooks does not require holes.

CALCULATION OF SLATE QUANTITIES

In addition to the actual area to be covered, you should allow for overlaps of approx. 15 – 20 % depending on the slate format (width).

WEIGHT

The slate's specific weight is 2700 kg/m³. As an example will 1 m² of facade slate with a width of 40 cm abd a thickness of 15 mm, installed with a 6 cm overlap (15 % of the slate width) weigh approximately 47 kg.

2700 kg/m³ x 1 m² *x 0,015 m x 1,15 (overlap) = 46,6 kg/*m²

CONSTRUCTION

23 mm vertical loops and 36 x 48 mm horizontal wooden battens of impregnated wood or metal profiles are screwed into the existing wall structure.

If the facade will be consisting of slate panels at different heights, the battens are screwed in according to the planned laying pattern, possibly during the course of the slate installation.

The horizontal battens are placed so that the slate holes are centred on the batten.

SLATE FIXING, ALT 1: HOOKS

There are several separate systems for fixing a slate facade with hooks. The principles are basically the same; metal rails are attached directly to the support wall or on vertical battens. The rails are densely perforated, which provides good aeration behind the slate. The slate is then easily suspended in the perforated rails using hooks (dimensioned for slate thickness).

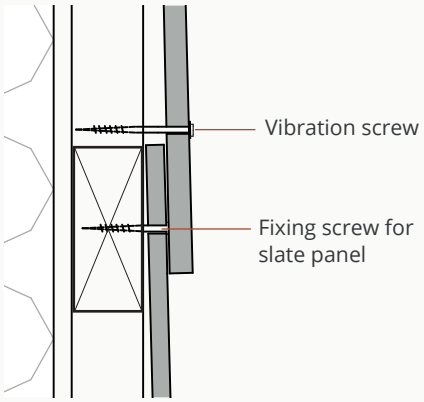
Example: When using slate panels with a width of 30 cm and a thickness of 12 mm, the rails and slates have a depth of no more than 57 mm and the weight is approx. 35 kg per square metre. This allows the system to be installed on most buildings - both old and new.

SLATE FIXING, ALT 2: SCREWS
To fix the slate in place, use 6 mm screws of acid-proof quality and lowered head (2 per slate panel). The screws are used in the pre-drilled holes at the top of each slate slab.

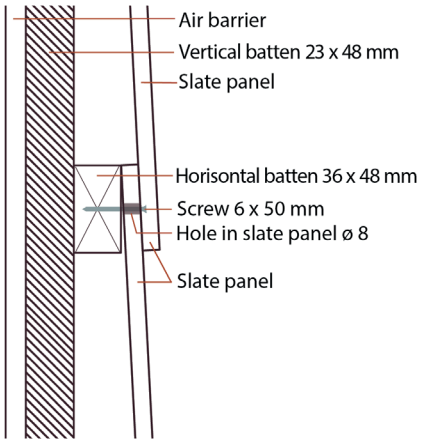
Start at the bottom of the wall and mount upwards in horizontal shifts with overlaps (min. 50 mm) and so that both screws on the panel below are hidden. The slate is installed at a vertical distance of 2 – 3 mm to allow for any expansion caused by fluctuations in temperature and to achieve good run-off/aeration.

In order to prevent water from penetrating the vertical joints, metal trim or roofing felt may be added to the joints behind the slate, (width 10 cm).

If large slate formats are used and/or there is a risk of high wind loads, if desired, vibration screws can be inserted in the lower edge to avoid possible vibration noise. For this, a visible roofing sheet screw with a gasket is used, which is screwed in after a hole has been drilled in place. The screw should be positioned so that it only goes through the outermost slate and not through the slate beneath which it overlaps. Alternatively, vibrations can be prevented by mounting a hook in the lower edge.



ON WOODEN BATTENS



ON METAL PROFILES