Assembly Instructions

Light Oppdal and Offerdal quartzite

MINERA SKIFER

This is a 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.

FACADE - VERTICAL

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/m^3 (1 m^2 facade w/overlap in thickness 20 mm = 65 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:	Vertical edges: sawn, hewn
	Optional bottom horizontal edge: sawn, hewn or natural broken edge
Format:	Optional sizes in fixed or falling lengths within min/max:
	W: 200 - 600 mm, H: 300 - 1200 mm, D: 10 - 30 mm
	Different widths and lengths can be combined

→ The slates are supplied with two 8 mm holes for fixing. The holes are located 30 mm from the top edge and 75 mm in from the side edges.

CALCULATION OF SLATE QUANTITIES

In addition to the actual area to be covered, overlaps of approx. 10–20 % must be allowed for depending on the slate format:

- overlaps of 50 mm:
  facade panels with sawn edges
- overlaps of 100 mm:
  facade panels with bottom horizontal edge natural broken

WEIGHT

The slate's specific weight is 2700 kg/m^3. As an example will 1 m^2 of slate with thickness 20 mm installed with a 20 % overlap (of the width of the slate) weigh approx. 65 kg.

2700 kg/m^3 x 1 m^2 x 0,020 m x 1,20 (overlap)

*= 64,8 kg/*m^2

CONSTRUCTION

48 x 48 mm vertical battens are screwed into the existing wall structure. For a facade consisting of slate tiles of different widths, the battens are screwed in according to the planned laying pattern or as the slate is installed.

The battens are always placed 50 mm in from the edge of the slates.

SLATE FIXING

To fix the slate in place, use 6-mm screws of acid-proof quality and a flat head. 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 vertical shifts with overlaps (min. 50 mm) and so that both screws on the plate below are hidden. The slates are installed with a vertical distance of 10 mm (opening between the vertical slate rows = 10 mm).

To prevent vibration in high winds, consider securing the lower edge. This is particularly relevant when using slate slabs in long lengths. For this purpose, a visible roofing sheet screw with gasket is used, which is screwed in after the holes have been drilled on site. The roof tile screw must be inserted in such a way that it only penetrates the outer slate, and not the slate that it overlaps. Alternatively, vibration can be prevented by installing a hook at the bottom edge.

Vibration screw

Fixing screw for slate panels

Outer wall

Air barrier

Batten 48 x 48 mm for slate fixing

Slate panel

Roofing screw to prevent vibration (optional)

Hole ø 8 mm, acid-proof screw ø 6 mm