



## OPPDAL QUARTZITE - STANDARD SELECTION

Edges: sawn, broken, rough broken, natural. Surfaces: natural, antique brushed, silk brushed

We deliver other sizes, thicknesses, edges and surfaces on request. We also deliver other products like facades, slabs, custom made slabs, machine stone etc.

| Product                               | Thickness                     | Size   |  |
|---------------------------------------|-------------------------------|--|--|
| <del>-</del>                          | 10 00 00 70                   | 000 700 400 500 000   1700 500 400 500 700 700 400 400                 |  |
| Tiles, natural                        | 10-20, 20-30 mm               | 200, 300, 400, 500, 600 mm x rl, 300x600, 400x600, 300x300, 400x400 mm |  |
| Tiles, natural                        | 12 mm                         | 00, 300, 400 mm x rl, 300x600, 300x300, 400x400 mm                     |  |
| Tiles, antique brushed                | 12 mm                         | 200, 300, 400 mm x rl, 300x300, 400x400 mm                             |  |
| Tiles, silk brushed                   | 10 mm                         | 200, 300, 400 mm x rl, 300x300, 400x400 mm                             |  |
| Paving tiles                          | 30-40, 40-60 mm               | 200, 300, 400, 500, 600 mm x rl  |  |
| Garden tiles                          | 30-50 mm                      | 400x600, 600x800, 800x1200 mm (approx)                                 |  |
| Crazy paving, small                   | 5-10, 10-20, 20-30, 30-40 mm  | 5-10 pcs pr m <sup>2</sup>   |  |
| Crazy paving, medium                  | 10-20, 20-30, 30-40, 40-60 mm | 2-5 pcs pr m <sup>2</sup>  |  |
| Crazy paving, medium (floor cladding) | 10-20 mm                      | 2-5 pcs pr m <sup>2</sup>  |  |
| Crazy paving, large                   | 20-30, 30-40, 40-60 mm        | 1-2 pcs pr m <sup>2</sup>  |  |
| Crazy paving, extra large             | 80-130 mm                     | ≤1 pcs pr m²   |  |
| Treads                                | 20-30, 30-40 mm               | 300, 325, 350, 400, 500, 600 mm x rl                                   |  |
| Treads                                | 30 mm                         | 300, 325, 350 mm x rl  |  |
| Risers                                | 15-25, 12 mm                  | 125, 150 mm x rl   |  |
| Massive treads                        | 130-170 mm                    | Width 50-80 x length 80-100, 100-120, 120-150, 150-180, >180 cm        |  |
| Window sill                           | 15-25                         | 125, 150, 175, 200, 225, 250 mm x rl                                   |  |
| Window sill                           | 25-40 mm                      | 250 mm x rl  |  |
| Chimney cover                         | 20-60 mm                      | 600x600, 700x700, 800x800, 800x1200 mm                                 |  |
| Wall bricks, broken edge              | 30-60, 20-50 mm               | 5-8, 4-11, 8-11 cm depth, 11 cm depth                                  |  |
| Wall bricks, rough broken edge        | 30-60 mm                      | 8-11 cm depth  |  |
| Wall bricks, broken edge              | varying thickness             | 5-15, 10-30 cm depth   |  |
| Wall bricks, natural edge             | varying thickness             | 5-12, 10-20, 15-30 cm depth  |  |

### TECHNICAL DATA

| Feature/test                         | Standard       | Value                  | Comment         |
|--------------------------------------|----------------|------------------------|-----------------|
|                                      |                |                        |                 |
| Petrography                          | NS-EN 12670    | Quartzite              |                 |
| Density                              | NS-EN 1936     | 2,71 g/cm <sup>3</sup> |                 |
| Water absorption                     | NS-EN 13755    | 0,2 weight-%           | Frost resistant |
| Flexural strength                    | NS-EN 12372    | 38,3 MPa               | Mean value      |
| Compressive strength                 | NS-EN 1926     | 235,3 MPa              |                 |
| Abrasion resistance                  | NS-EN 1457 (A) | 17,0 mm                |                 |
| Slip resistance antique brushed, dry | NS-EN 14231    | 60                     |                 |
| Slip resistance silk brushed, dry    | NS-EN 14231    | 71                     |                 |
| Slip resistance honed C600, dry      | NS-EN 14231    | 81                     |                 |
| Slip resistance antique brushed, wet | NS-EN 14231    | 30                     |                 |
| Slip resistance silk brushed, wet    | NS-EN 14231    | 49                     |                 |
| Slip resistance honed C600, wet      | NS-EN 14231    | 31                     |                 |

# MINERALOGY

| Mineral             | Value    |
|---------------------|----------|
| Quartz              | 35 - 45% |
| Mica                | 15 - 30% |
| Feldspar<br>Epidote | 20 - 25% |
|                     | 2 - 8%   |
| Titanite            | 2%       |



### LOW ROAD MILES

Compared with most natural stone used in Scandinavia, our products generate only few road miles. Our quarries are at Oppdal near the Dovrefjell mountains, at Otta in the Gudbrandsdalen valley and in Offerdal close to Østersund in Sweden.

#### **ENERGY CONSUMPTION**

Energy consumption for extraction, transport from the quarry and for further processing is low. The material is split by hand and it is mostly cut to the correct sizes. No electrical power or oil is used for these operations. Just about every other type of natural stone is sawn from blocks and further processing consumes a lot of energy for splitting and grinding to produce a finished product.

#### RE-USE

As long as our stone is not exposed to any "abnormal" stresses (impacts and loading that is excessive for the design thickness) and is exposed to normal weather conditions, our stone is 100% reusable. The re-use percentage varies however depending on the installation method used. If the product is floor tiles cemented to a concrete base, then re-use is not really a realistic option. Wall cladding using bricks, dry stone walls, stone cladding on ventilated exterior walls and roof tiles on the other hand may be 100% recyclable.

When used for cladding interior and exterior walls, and in landscaping walls alongside roads and railways, as flood protection and such like, stone can be used to create structures that are both beautiful and benefit society. Unlike concrete structures, a natural stone wall can be rebuilt, and the material can be 100% reused in the future, if required.

In addition, the disposal of any stone material that is not reused does not entail any problems whatsoever. It can simply be returned to nature, where it came from.

#### EMISSIONS INTO THE ATMOSPHERE AND INTO WATER

Neither quarrying operations nor processing of the stone results in the release of any harmful substances into the air or ground or into water.

#### LIFETIME

As long as the stone is not exposed to any "abnormal" stresses and is exposed to normal weather conditions, it will have an estimated lifetime in excess of 100 years. The stone is already hundreds of millions of years old, and its properties will not change by being used indoors or outdoors for a few more centuries.

There are examples of stone structures that were built shortly after completion of the Dovre line in 1921 and which are still standing today precisely as they were built. There are no signs of weathering, or of any other change. These exterior surfaces have required only minor maintenance. Of course there is no need for painting or washing, removing algae or any other kind of maintenance.

The station hotel in Oppdal is a good example, as are the engine sheds. The walls of these buildings have probably not been touched since they were built. What can be seen is damage to concrete casings and such like. The stone is undamaged. Inexpert installation may shorten the lifetime of the product.