

HANDLING RECOMMENDATIONS HANDFORM FACING BRICKS

Handformed facing bricks are a natural, baked product. The use of brick as a construction material has been established since time immemorial. The intrinsic qualities of the product, and the beauty of a masonry façade, are also highly appreciated nowadays.

A correct handling of facing brick and construction materials in general is part of the technical expertise of the contractor. The handling recommendations that are presented below will therefore only be a description of the proper way of working for professional craftsmen. It is nevertheless an interesting collection of recommendations and points of attention and a correct application of these will lead to a great building.

1. IN ADVANCE OF LAYING BRICKS

1.1 The placement of an order

Vandersanden sells exclusively via the building and construction trade. Thanks to our extended and modern production facilities, we can usually deliver all our products very quickly. We do, however, advise you to place the order with your dealer in a timely manner, so that he has the necessary time for correct administration and delivery. Always order the entire amount of facing brick required in one go. This way the dealer will have an idea of the total extent of your construction site.

1.2 Delivery of facing bricks

Always try to have the total quantity of facing brick delivered at the construction site, before the works are started up. Only this way is a correct colour-blending of facing bricks (also see section 2.1) easy to achieve. If you do not have sufficient storage space at the construction site, then you should take the necessary precautions and in consultation with your building materials supplier, make sure that all of facing bricks are delivered from a single baking batch. Always let the pallets be stored on an even and clean surface.

1.3 Visual inspection

Inspect and assess the delivered facing brick at the construction site, to make sure that these correspond to the ordered product. Each pallet of facing brick is identified with a CE label that contains all data about the delivered bricks. If the delivery does not conform to the order, then this must be reported immediately, before work proceeds.

1.4 Correct storage at the construction site

Position the pallets on a dry surface, such as e.g. small wooden beams. Always protect the facing bricks against rain, rising humidity and splashing dirt.

1.5 Determination of the average length and height

To determine this average, take 10 bricks at random from various layers of the pallets that have been delivered, including the top, the middle and front the bottom of the pallets. For determining the average height stack these 10 bricks upon each other. Then measure the total height and divide by 10. Proceed in an analogue fashion for obtaining the average length.

If two or more different types of facing bricks are combined, then the average length and height of each stone type must be separately determined, as described above. Then compare the results for each different type, in order to arrive at an overall average dimension.

1.6 Workability of bricks

A facing brick has, in principle, 2 workable heads (short side) and 2 workable stretchers (long side). If at least 1 head and 1 stretcher do not show any deficiencies, such as small cracks, inclusions and broken corners, then the facing brick conforms to acceptable standards and can be used in masonry. It is the mason who determines the side of the facing brick that will be turned to the front so that it is visible.



2. DURING MASONRY WORKS

2.1 A correct colour-blend of facing bricks

This is probably the most important rule of thumb, which is unfortunately frequently neglected. It is nevertheless the only guarantee for achieving a beautiful colour gradation, without disturbing colour differences in the surface of the facade. Blend the stones at the same time from 4 or 5 different pallets. Do this by picking up stones diagonally from the pallets, as indicated on the illustration that is included with each pallet. Open the following 4 to 5 pallets for blending with the other bricks, when the stock from the first pallets begins to run out. This way you will achieve a continuous colour blending of the facing bricks.

2.2 Reordering bricks

If you should nevertheless have to reorder additional bricks, then you should always pass on the information from the first delivery to your construction materials supplier. To the extent that it is possible, Vandersanden will make every effort to deliver bricks from the same baking batch to you. Make absolutely sure that not all bricks from the first delivery are used up, before your reorder of facing bricks arrives at the construction site. Remembering the principle of continuous blending, these bricks must also be blended with each other.

2.3 Use a good masonry mortar

Masonry mortar generally consists of cement (binding agent), sand and water, which may possibly be supplemented with accessory materials and additives. It is recommended to minimise the use of additives. You should always select a mortar composition that is appropriate for laying medium to strongly absorptive facing bricks. If the mortar is prepared at the construction site, then you must make sure that the correct amount of cement and clean mixing water is used.

You can also opt for a factory-prepared mortar. The advantage of this is that the composition and a constant quality are guaranteed by the supplier of the mortar. A good mortar assures good adhesion. You can check this by means of the 1-minute test. Attach two bricks to each other with mortar, then take them apart again after 1 minute. If a good adhesive mortar is being used, then a proportional amount of mortar will adhere to each side of the bricks.

2.4 Masonry with thin joints

For masonry with thin joints, you can opt for 3 different ways of working:

- Utilisation of thin-bed mortar: This makes it possible to work with joints of approximately 4 mm. Due to the composition of this type of mortar, however, it is no longer possible to work with a trowel; instead a dosing pistol or a piping bag will have to be used.
- Utilisation of thin mortars: The composition of this type of mortar lies somewhere between a thin-bed mortar and standard cement mortar. It can be applied with a trowel; however the joint thickness is somewhat larger (6 to 8 mm).
- The ZERO format: A form of a ZERO-brick, which has been patented by Vandersanden, makes it possible to achieve thin joints of 4 mm in classic masonry. This is because the mortar sinks partially into the stone surface. The masonry mortar that is used in this case conforms to the same requirements as with normal masonry work (see section 2.3).

Masonry with thin joints no longer needs to be pointed. Although thin-bed mortar and ZERO-mortar are hardly visible, it is recommended to adapt the colour of the mortar to that of the brick. If there is a too large difference in colour between the mortar and the brick, this can have an annoying effect.

2.5 Protection of the first layers of masonry

The first layers of the masonry often are exposed to spattering dirt. This can be prevented in a simple way, by protecting these layers with a plastic foil. You can also spread some stone rubble or gravel around the building, so that dirt cannot splatter up.



2.6 Protecting fresh masonry

Fresh masonry should be protected at the end of the working day with a layer of plastic foil. This prevents the masonry from possibly becoming saturated with rainwater. Water in bricks increases the possibility of leaching, cement laitance and efflorescences. After the completion of the masonry works, make sure that the drainage of rainwater is assured as quickly as possible, so that it cannot run cross the facade.

2.7 Masonry works during rainy weather

For the same reasons as mentioned in section 2.6, this can only be advised against in the strongest terms.

2.8 Avoiding mortar rests

Excess mortar, which is pushed towards the cavity during application, is best removed with a trowel. If these mortar rests heap up then there is a risk that a moisture bridge is created between the outer and the inner surface, with moisture infiltration as a consequence.

2.9 Correct installation of insulation

If you opt for a wall structure with an air cavity, then the cavity-fill insulation is attached to the inside wall. This must be carried out very carefully. If the insulation also touches the outside surface, due to a wrong positioning, then moisture that seeps in at those locations can penetrate to the inside wall.

2.10 Avoid dirty drainage stripes at windowsills

Temporarily install the windowsills, or cover the openings. Windowsills made of Belgian blue stone or natural stone are usually provided with small elevations and drip edges. These prevent that the collected dirt streams from the corners over the facade and leaves dirty stripes.

2.11 Avoid unnecessary contaminations

Keep bleeding wood surfaces, e.g. saturated wood, away from the masonry. This can cause dirty spots in the event of rain. If facade bricks, bricks of the wall or roof tiles need to be cut, make sure that these works are carried out at a sufficient distance to the masonry. Grinding powder that has penetrated into the brick is extremely difficult to remove.

2.12 Dry and warm weather

In the event of continuously dry and warm weather conditions, it is recommended that fresh masonry work is moistened additionally at the end of the working day. This prevents that the mortar dries out too quickly, which prevents the best adhesion.



3. AFTER THE MASONRY WORKS

3.1 Pointing the facades

The joints are an integral part of the visible facade. The colour of the pointing mortar is therefore playing an important role in the final look of the result. In the case of a facade brick with more or less colourful hues, it is valid that light joints will usually strengthen these hues, while dark joints will have a softening effect. In the case of a uniform colour, "tone-in-tone" pointing mortar will often be selected. This strengthens the uniform look of the facade.

The contractor for the pointing works may opt to prepare his own pointing mortar, or he may choose to work with prefabricated pointing mortars. For pointing works with a very strong colour, e.g. red, violet, black, brown etc., a prefabricated pointing mortar will usually be used. After all, the producer of the mortar can guarantee its quality and colourstability.

Pointing works must be carried out with great care. If the freshly pointed facade parts are not correctly brushed off, then cement laitance can occur.

3.2 Cleaning of facades

If the masonry should be dirtied, for instance with cement laitance, graffiti, oil, grinding dust, paint, etc., it is best that you call upon the services of a specialised cleaning company. Cleaning with an appropriate chemical product usually is carried out in 3 steps:

1. thin the product as indicated on the packaging and apply it in vaporised form on the parts of the facade to be treated
2. let the product work in for some time
3. flush off thoroughly with lots of water

For more details about the use of the corresponding product and its safety regulations, please refer to the documentation of the manufacturer.

The white efflorescences, which sometimes appear shortly after the termination of the masonry works, need not be cleaned off as described above. In most instances this concerns salt deposits from the mortar. Normally these will be dissolved by rainwater and disappear. You can of course lend nature a hand by regularly and lightly spraying off the facades of your building with water. Never use high-pressure hoses.

3.3 Hydrophobic application

Hydrophobicity is a chemical waterproofing agent, which is applied to your facade for the purpose of making it watertight. As such, a hand-formed facade brick does not require that kind of protection. Due to its pore structure, the brick will buffer rainwater and subsequently give it off again as vapour.

To prevent efflorescence at a later state (gypsum-effect), or to avoid the facade becoming more quickly contaminated, e.g. due to forest environment (algae, moss), or the location on a busy road (exhaust fumes), we recommend the hydrophobation of the facade. In such cases, you should always choose a high-quality product and have the works carried out by a specialist. A good hydrophobicity product will penetrate deep into the stone structure, making it effectively watertight while nevertheless remaining vapour permeable, so that any condensation moisture in the space between the facade and the wall can still escape.

3.4 Painting the bricks (or lime plastering)

Facades made of hand-formed facade bricks can also be painted. It is best to brush off the bricks thoroughly first, so that excess sand is removed and a better adhesion is obtained.

A high-quality wall paint should always be used and it is recommended that these works be carried out by a specialised company. We will gladly refer you to a corresponding manufacturer for the most suitable paint.

