

Clinker Bricks Facade



Why is clinker brick facade a good long-term investment?

Clinker bricks cost initially more than other types of external finishes like render or cladding. However, the facade made of clinker is almost maintenance free. Clinker bricks are a natural material resulting from firing clay at very high temperatures (over 1000 °c). It is the production process which gives them exceptional durability and strength. Clinker bricks are stronger than regular bricks. In addition, clinker bricks do not change colour, and even under the influence of prolonged exposure to sunlight, are resistant to mechanical damage. A facade made from them requires almost no maintenance; dirt

and dust do not penetrate into it, and any dirt is easily cleaned with a pressure washer. Low water absorption of bricks made them resistant to frost. Additionally, clinker bricks are also resistant to corrosion, biological chemicals and acids. Clinker bricks are used for decorative purposes. The final finish of clinker brickwork depends on the standard of bricklaying.

Sealing

The first layer of mortar for bricklaying clinker is laid on the previously built and properly sealed foundation, from the damp proof course level (DPC).





Mortar preparation

It is essential to choose the right kind of mortar to the specific type of bricks. Choosing the right mortar for bricklaying clinker provides a free flow of water over the wall and fast drying after the cessation of the rain and the whole structure is less susceptible to dirt and efflorescence.

Atlas masonry mortar for clinker contains trass, volcanic origin mineral, which limits the possibility of efflorescence appearance on the mortar surface. It is also resistant to UV radiation, so intense colours do not fade, and the mortar keeps its strength parameters. Moreover, thanks to quartz aggregate used for the mortar

manufacturing, it is free from organic and inorganic pollution that often leads to saline efflorescence

Appropriately selected aggregate assures easy application. Always use the technical data sheets for proportions. Mix mortar with appropriate amount of water using a drill with a mixer (or in cement mixer) until homogenous. Adding more water to mortar in later stage may result in differences in mortar shades. Mortar should be used directly after mixing within approximately 3 hours.

Clinker bricks preparation

Clinker bricks must be clean, free from dust and dry. When laying bricks, take bricks from

several pallets or batches to minimise the slight possibility of differences in colours between batches and make the homogenous colour of the facade.

Bricklaying

The bricklaying should not be undertaken in adverse weather conditions. It is important to protect the mortar so it will not be washed out from joints. The clinker brick facade should be protected against rain for 14 days with a protective covering sheets.

The first stage of bricklaying consists only of joining bricks with the masonry mortar, leaving space for joints. Filling in joints in the walls with Atlas Masonry Mortar with trass should start not earlier than seven days after the first stage. The joint thickness should be the same for the whole layer. In the case of small mortar residue, after the mortar dries (approx. 5-6 hours) it is necessary to dry clean the surface of the wall with the brush.

Impregnation

Impregnation is often recommended after a minimum of 7 days of the end of bricklaying. It can prevent soiling. Without impregnation, the clinker brick facade quickly absorbs water along with any dirt, which eventually leads to the destruction of the wall and loss of aesthetic appearance. Recommended sealers Aval KT98 or Wykamol Enviroseal.





CONSTRUCTION TECHNOLOGIES

Clinker brick and salt efflorescence

Careful execution of each stage of clinker laying procedure can protect against efflorescence which decreases the aesthetics value of the clinker brick facade. Salt efflorescence may cause leaks on the structure in the form of hard, thick sediments, thin, dusty raids or crystallised soluble efflorescence salts. The wrong choice of mortar and its improper preparation, grouting after rain before the ground dries out or allowing a cement mortar dry to quickly increases the risk of efflorescence.



- Lay clinker bricks facade in parts- 5-6 rows per day.
- Ensure that bricks were stored with due diligence, covered with foil as too much moisture in the bricks makes it difficult for the wall to be aligned, reduces the bond strength of mortar and contributes to an increased lesion and discolouration arising.
- Lay clinker bricks in normal weather conditions, avoid laying in temperature over 30°C and below 0°C.

- The best final colour of the facade can be achieved when bricks are mixed, for instance one row from each pallet. Clinker brick cannot be laid from the same pallet.
- The clinker brick should be laid with the insulation or an air space between brick laid wall and existing wall.
- The brick laid wall can be tied to the existing framework with anchor fasteners.
- In the case of rain stop bricklaying and protect the surface excessive sun exposure can lead to accelerated mortar setting what will result in lower bond strength, scratches and cracks
- To allow for ventilation it is sometimes recommended to leave some joints not filled with solution.
- Joints should be finished off when the brick mortar is completely dry.
- Secure the freshly laid wall with the protective foil for about 3 to 4 days impregnate the clinker facade to protect it from stains and efflorescence.



