



ALLSTONE

NATURAL STONE SPECIALISTS

WALLING

INSTALLING NATURAL STONE VENEERS

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Natural stone veneers are thin pieces of stone (typically between 10 - 35mm thick) that are fixed to walls or floors (the 'substrate') with an appropriate adhesive.

We hope this document provides helpful information on installing natural stone veneers, but if in doubt, please consult the relevant Australian standards and contact the relevant trades and installers for professional help.

SUBSTRATE

Any intended substrate structure must be appropriate for stone application. This may require engineering consultation. Please check the substrate manufactures recommendations, including its weight bearing capacity before installing any stone.

Generally, substrates must allow limited movement, be able to structurally support the stone, be true and clean of dirt, oils, grease, paints, curing compounds and any other material that may impact the adhesion of tile glue.

- **Brick masonry** - Generally appropriate for stone tiles and veneers. However, hard burnt and glazed bricks are not suitable.
- **Cement Sheeting** – Some cement sheet products may be suitable for installing natural stone veneers, check the manufacturers specifications on fixing to achieve the required weight rating. When applying stone to a cement sheet a suitable primer, adhesive and water proofing may be required according to the manufacturer's specifications.
- **Tilt-up Concrete** - All concrete substrates must be appropriately cured, be free of laitance and have a keyable surface. Before applying stone veneer, the walls must be mechanically abraded by sandblasting, grinding, or scarifying, to remove releasing agent used in the production of tilt-up walls. The agent otherwise can cause the tile adhesive not to bond to the concrete.

CONTROL JOINTS

Stone application must follow and not interfere with the operation of any control joints that exist in the structure to be clad. For example, this includes areas where there are changes of different background materials, internal vertical corners, horizontal and vertical joints.

WATERPROOFING

Moisture considerations must be made when installing natural stone. It is recommended that capping, flashing, or other treatment be used to stop any moisture from accessing the space between the stone and the substrate.

PRIMING

Primers can assist in bonding adhesive to the substrate and depending on your substrate, priming may be required prior to applying stone veneers.

INSTALLATION METHOD

Stone should be fixed to the substrate according to the Australian Standards and the adhesive's manufacturers recommendations, using the Tarver Method.

Due to the variation present in natural stone products, we suggest inspecting all stone supplied before laying and blending stone from all crates.

Ensure both the back of the stone and the substrate is free of dirt, dust and other contaminants prior to application.

Spread the adhesive on the substrate surface with a 10-12mm notched trowel to achieve both the minimum required coverage and bed thickness. When the trowel is held at an appropriate angle and its notched side is drawn over the adhesive, it will give a series of parallel ribs. This operation must be carried out correctly as adequate ribs are essential to ensure an evenly distributed area of contact between stone and adhesive. You are aiming for full coverage of the stone application area. These ribs should be horizontal for walls. Apply the adhesive in small areas as you go to ensure the adhesive does not skin prior to bedding of the stone. Buttering the whole back of the stone with a thin screed of adhesive 1-2 mm thick to achieve 99% coverage.

The stone should then be pressed onto substrate and then moved at least one width of a rib perpendicular to the adhesive ribs. Checking coverage on a sample piece (take it off the wall to check when wet) can be used as a sample check that full coverage is being achieved.

Work clean and remove adhesive immediately from unwanted areas especially the face of the stone. There can be some bleeding of moisture and adhesive colour on dark coloured stone; using the above method should minimise this. Stone may also be pre sealed if preferred.

To achieve the required gap size, pre-soaked timber dowels or wedges can be used as spacers.

Once laid, do not disturb stone as per adhesive manufactures recommendations for curing.

ADHESIVE

Generally, we recommend using a good polymer-based nonslumping adhesive to bed stone elements. There are many reputable companies with a wide range of products available and research and development of adhesives are continually improving. However, in certain environments a fast-setting adhesive may be required. For site specific requirements we suggest you contact the adhesive supplier.

Please note, some weather conditions, such as temperature and moisture, can interfere with the adhesive bonding and curing. Please consult manufacturers recommendations for details.

MECHANICAL FIXING

Depending on the site conditions, including the weight of the stone and the height of application, mechanical fixings such as a shelf, pin or tie back system may be required. Please consult you engineer, mechanical fixing suppliers and the relevant Australian Standards for more information.

CUTTING

Natural stone can be cut with a diamond blade wet saw. The stone should be washed immediately after it is cut to avoid cutting paste drying and staining the surface of the product.

Personal protective equipment should be worn when cutting, drilling or otherwise being exposed to natural stone dust. Any cutting equipment should always be used in accordance with manufactures instructions.

GROUTING AND POINTING

Allstone has a range of pointing mixes that match our displays, please contact us for more information.

When working with either a grout or a pointing mix, always work clean and have plenty of clean water on hand during installation. We recommend a minimum grout joint of 3mm as different stones have varying edge tolerances.

Natural stone should not be cleaned with acid.

Disclaimer

The information in this guideline is general in nature and do not supersede the relevant Australian Standards. Installers should consider many factors, some of which have not been covered in this document. Allstone is a stone retailer and are not an accredited trades or builders, we provide this information for convenience only and this document represents a summary of our understanding at the time of publishing. It is the responsibility of the builder and installer to determine if these guidelines are suitable.