

LARGE PANEL STONE INSTALLATION GUIDE

INTRODUCTION

Large Panel Stone is a light-weight, natural stone cladding material that is suitable for indoor and outdoor use on feature walls, feature panels, columns, retaining walls and facades.



Large Panel Stone Hotham

PRODUCT RANGE

There are two colours in the Large Panel Stone range:



Large Panel Stone Moresby - Item 6762 / 97642



Large Panel Stone Hotham - Item 6779 / 97643

- The size of each panel is 600 x 150mm with an average thickness of 8 to 15mm.
- The average weight of Large Panel Stone is 27 Kg per square metre.
- Large Panel Stone is supplied in cardboard cartons containing 6 panels. Each carton covers 0.54 square metres. There are 11.1 pieces of Large Panel Stone per square metre.

Large Panel Stone is made from natural stone, either slate or quartzite pieces. The individual stone lathes are glued together with construction grade epoxy adhesive to form finished tiles or panels.

Large Panel Stone can be installed by most home handymen with an understanding of building however it is generally recommended to be installed by a suitably qualified tradesman. This information kit provides guideline information only and is not intended to be interpreted as a general specification for the application or installation of the products described. As each project differs, recommendations may vary from those contained herein. For specific applications/ installations, contact your adhesive supplier.

IMPORTANT

Supporting framework and walls must be structurally sound and able to support the weight of the Large Panelstone. Check with a suitably qualified engineer or professional builder if in doubt. The manufacturer of the substrate material may also give advice as to the ability of their material to support the weight of natural stone cladding. The average weight of Large Panel Stone is 27 Kg per square metre. Where the Large Panel Stone installation is to exceed 3 metres in height on a wall surface, a suitably qualified engineer should be consulted for confirmation of the load bearing capacity of the wall structure and suitable fixing systems.

See the following Ardex Technical Bulletins: TB001 for a table of typical substrates and recommended supporting weights, and TB148 for examples of mechanical fixing systems that can be used together with adhesive.

Note: DO NOT USE HardiTex Blue Board as a substrate for stone installation. The manufacturer does not recommend it as it will not support the weight, especially if it is subject to any moisture.

INSTALLATION GUIDELINE

SUBSTRATES

Large Panel Stone may be fixed to suitably constructed walls of sheet linings such as fibre cement, fully cured concrete, concrete block or cement render finishes, and nominated Ardex Undertile Waterproofing membranes or a suitable comparable product. Ensure the wall or substrate is clean, dry and free from paint or other coatings or contaminants. Painted surfaces must be sandblasted to remove all paint prior to installation.

SHEET LININGS – INTERNAL WALLS ONLY

Ensure any timber or metal frame supporting the substrate is structurally sound and can support the weight of the product. Studs should be at 500-600mm centres. Where sheet linings (fibre cement or plasterboard) form the substrates, ensure the sheets are mechanically fixed to the support framing at 100mm centres in accordance with the sheet manufacturers' instructions. All joints in the sheet linings are to be filled and smoothed using the base coat compound only and allowed to dry.

All fibre cement sheets and jointing compound on plasterboard sheet joints must be primed with Ardex Multiprime or a suitable comparable product and allowed to dry prior to fixing.

Sheet linings must be protected from moisture in internal wet areas, water features and similar by a suitable waterproofing membrane or a suitable comparable product that is compatible with the installation adhesive.

Note: Fibre cement sheeting generally is not recommended as a substrate for external walls to receive tile finishes and we recommend the sheet manufacturers be consulted where the Large Panel Stone is to be fixed in external applications.

CONCRETE AND CEMENT RENDER

All concrete surfaces must have completed the recommended (AS3958.1-1991) curing and drying period of a minimum of 28 days prior to fixing Large Panel Stone. The surface must be dry, free of all curing compounds, form release agents, and contaminants such as debris from other trades, waxy or oily films, excessive laitance and paint over-spray. All contaminants may be removed, and very smooth, steel float finished concrete scarified by mechanical methods such as grinding, abrasive blasting or similar treatments to achieve an open pored surface.

Cement render is applied over brick and concrete block substrates in accordance with the recommendations of AS3958.1-1991, prior to the adhesive fixing of Large Panel Stone. The render should have completed at least 7 days curing and drying and be wood float finished. Porous render must be primed with one coat of Ardex Multiprime or a suitable comparable product and allowed to dry (approx 10 -20 minutes) prior to fixing Large Panel Stone.

WATERPROOFING MEMBRANES

Ardex Undertile Waterproofing Membranes or a suitable comparable product may be applied to the prepared wall surfaces prior to the installation of Large Panel Stone. The Ardex membranes include the Ardex WPM 001, Ardex WPM 002 and the Ardex WPM 390 membranes. These membranes must be applied in a minimum of two coats to achieve the minimum 1mm dry film thickness. Allow each membrane to fully cure and dry in accordance with the product instructions before fixing Large Panel Stone using the recommended adhesives.

Ensure products are clean and dry prior to installation. Inspect packs carefully for acceptable colour and consistency prior to installation. Large Panel Stone pieces from a number of different packs should always be mixed together during installation to achieve an acceptable colour blend. Joints should be staggered randomly or laid in a brick bond to retain a natural appearance. All natural stone varies in colour. This is to be expected and display samples should be treated as indicative only.

ADHESIVES

Large Panel Stone may be fixed to the prepared wall using a suitable adhesive. The following adhesives are suggested as suitable for use with Large Panelstone however check with the manufacturer for specific installation suitability:

- **ARDEX:** Optima 2, Ardex STS8 mixed with Ardion E90 additive, or Abaflex
- **CTA:** MCB A 66, A 80, A 20 with Admix A. If the stone is exposed to a lot of water, use A 80 or A 20 with Admix A.

Product data sheets should be read carefully prior to adhesive use and all the manufacturers guidelines followed. If in doubt consult the adhesive manufacturer.

Apply the mixed adhesive to the prepared wall surfaces using a (minimum size) 10x10x10mm notched trowel, spreading the adhesive in the same direction across

the surface so the adhesive forms parallel lines. Work in small areas at a time so the Lite-Stone may be embedded before a 'skin' develops on the adhesive.

The stone panels should be placed with a sliding action back and forth across the lines of spread adhesive while pressing each piece firmly onto the wall. The sliding action collapses the lines of spread adhesive and achieves full contact between the adhesive and the back of the tile. Occasionally remove tiles and check there are no voids in the adhesive layer. If necessary, apply the adhesive using a larger size notched trowel or butter additional adhesive directly onto the back of each tile.

Note: the adhesive must fully cover the back of each piece as the Panel Stone pieces are only bonded together at the thin edges of each stone lath. A full bed of adhesive behind each piece is therefore essential to achieving a durable finish.

GROUTING

Large Panel Stone installations do not require grouting.

MOVEMENT JOINTS

Movement joints are required in the Large Panel Stone installations in accordance with the recommendations of AS3958. These joints should be at least 6mm wide and filled with a permanently compressible flexible sealant. In external applications the sealant must be stable when exposed to Ultra-violet light. Movement joints shall be located as follows:

- Over all existing movement joints in the wall structure.
- At each storey rise in the height of a wall.
- At all locations where a metal supporting angle has been installed to fill the gap under the metal to the stone below.
- At a maximum of 3.5m intervals along the length of a wall.
- Around all penetrations through the stack stone tile finish, and around any brackets fixed to the wall substrate.
- Around all joinery fittings such as door and window frames.
- Over all changes in the nature, plane and direction of the wall substrates.

FREQUENTLY ASKED QUESTIONS

Can this product be used in a water feature?

Yes but the water action will speed up the natural weathering process. The substrate, frame and adhesive should all be suitable for use in a wet environment. The stone surface is not impervious to water. A suitable waterproofing membrane must be used over the substrate. Large Panel Stone is not recommended for water features in areas subject to freeze/thaw conditions.

Can I recycle swimming pool water over this product as a water feature above the pool?

This is not generally recommended as salt crystals can form in the fissures in the stone, which can expand and cause de-lamination of sections of the natural stone face.

Are there matching corners available?

Due to the colour variation in natural stone, the best match is achieved using stone from the same batch. For internal and external corners a mitre cut should be made with a quality stone cutting blade on a wet saw. Cut both sides of the corner from the same panel at opposing 45 degree angles and bring together. See the installation guide for more details.

Will this product develop rust marks like other external slate and quartzite?

You may notice some increased brown colouring develop over time as pyrite (Iron Sulphide) in the stone oxidises as it is exposed to the air. This can be accelerated by exposure to moisture. It is part of the natural weathering process of natural stone. This can be cleaned but will reoccur as part of the natural weathering process. Sealing may reduce the rate of oxidation but not stop it.

Can this product be sealed?

A surface sealer to enhance the natural colours of the stone or a penetrating sealer can be applied to reduce staining after the installation has cured. This is generally 4 weeks. Any sealer must be reapplied as part of a regular on-going maintenance program. Consult the sealer manufactures for advice and test on a small inconspicuous area first.

Does the Large Panel Stone product require sealing?

Large Panel Stone can be left with its natural finish but applying a penetrating sealer will increase stain resistance. Clean the product with water and a stiff brush. Test on a small piece of stone first. Ensure installation is fully cured and fully dry before sealing.

What is a suitable adhesive to use with this product?

See the installation section for adhesive manufacturers' recommendations. Check the specific suitability for each project.

How high up is it safe to install Large Panel Stone?

Ardex recommend adhesive fixing Large Panel Stone only to 3.0 metres high. Above that height the stone panels should be mechanically supported to the building framework/structure in conjunction with the adhesive. See Ardex Technical Bulletin TB 148 for details.

How do I cut Large Panel Stone?

The best way to cut Large Panel Stone is with a wet saw fitted with a masonry cutting blade. Angle grinders fitted with masonry blades are only useful for cleaning up small

burrs. They should not be used to cut or mitre products. The stone laths are thin and care should be taken when cutting, ensuring each piece is fully supported and is not jolted. Individual stone lathes may become dislodged but this is normal. These can be used for further cuts or pieced back together when laid in the adhesive bed.

NOTE

The recommendations in Decor8's literature are based on good building practice, but are not an exhaustive statement of all relevant information and are subject to the following conditions:

a) the Product must be installed and maintained strictly in accordance with the relevant Decor8 literature current at the time of installation and must be installed in conjunction with the components or products specified in the literature. Further, all other products, including waterproofing and adhesive systems, applied to or used in conjunction with the Product must be applied or installed and maintained strictly in accordance with the relevant manufacturer's instructions and good trade practice;

b) the project must be designed and constructed in strict compliance with all relevant provisions of the current BCA, regulations and standards;

c) Decor8 will not be liable for any claims for losses or damages (whether direct or indirect) for damages or defects arising from, or in any way attributable to, poor workmanship, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached, incorrect design of the structure, efflorescence, staining or colour leaching, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product.

d) As the successful performance of the relevant system depends on numerous factors outside the control of Decor8 (eg. quality of workmanship and design), Decor8 shall not be liable for the recommendations in literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the Building Code of Australia ("BCA"), regulations and standards.