



# PRODUCT SPECIFICATION:

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## LIMESTONE

*ALL TIPS AND GUIDELINES SHOULD BE TAKEN AS GENERAL ADVICE AND SHOULD BE USED IN ADDITION TO THE RELEVANT AUSTRALIAN STANDARDS. THESE TIPS AND ADVISE ARE GIVEN IN GOOD FAITH. IN NO WAY DO THESE REPLACE THE SERVICE OF PROFESSIONAL CONTRACTORS/CONSULTANTS.*

Limestone is a sedimentary rock formed by the consolidation of sediments, seashells and other organic matter. This calcareous stone forms our largest product range. Each Limestone exhibits its own characteristic colours and markings and can vary greatly in density. Some Limestones have a similar appearance to traditional Marbles which can often lead to misclassification. Some degree of edge chipping should be expected along with occasional surface pitting, fossilised shells, fissures, mineral striations and resin fill. Limestone is an acid-sensitive material and so care should be taken to use the correct products when cleaning.

## INSTALLATION TIPS:

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### BEFORE INSTALLATION

Stone tiles are often packed into crates very tightly, are wet at the point of production and may have some residue from the various finishing processes used. Because of this it is recommended that stone tiles are washed and are allowed to dry completely before every stage of the installation process. They will often lighten in colour as they dry.

It is necessary tiles are dry prior to installation. Dry tiles will show any unusual tonal markings which will indicate where tiles should be placed. At the point of installation always ensure that stone tiles are mixed to ensure an even and consistent distribution of varying patterns. This will mean opening all crates or pallets of materials supplied.

Minor damage such as edge chipping is often caused in packing or unpacking tiles, and should be expected. It is deemed normal practice for these to be used as cuts during the installation. Un Calibrated stone tiles need to be graded prior to installation; the thicker tiles will dictate the floor level and should be installed first. Thinner tiles should be bedded with an appropriate large format floor adhesive.

Dimensions listed are nominal, as slight variation in size and thickness can occur with most stone. Please refer to chart below for Australian standards. All backgrounds to be tiled should be flat, level, clean, dry, and free of dust, grease and any loose material.

Make sure that you have discussed your requirements fully with your stone fixer and that they are familiar with the product that is to be fixed. Lighting on site during fixing should be as similar as possible to the light the space will naturally have.



## ADHESION

All Stone tiles must be solidly bedded, with 100% adhesive coverage of cement or gypsum based tile adhesives. We recommend **Mapie** products for the installation process.

*Please note : Some limestone's or large format tiles may have to be 'battered' with adhesive on the back in order to ensure complete adhesive coverage.*

Tiles should occasionally be lifted during the laying process to ensure that sufficient compaction and full bed adhesion has been achieved.

Fast setting adhesives are advisable to avoid issues with the moisture retention of some tiles. Some tiles require the use of specific adhesives to ensure problem-free fixing; please speak to us to discuss the requirements of your tile choice.

Light Coloured materials generally require fixing with white adhesives to prevent possible discolouration within the body of the stone. Flexible adhesives, combined with further substrate preparation, are required when the substrate is wood, or floor.

For uncalibrated stone tiles, the appropriate Large Format Floor Adhesive should be used to accommodate the variation in tile thickness and associated increases in the adhesive bedding.

The variation in tile thickness will be most noticeable if laying a mix of sizes in an uncalibrated material.

## GROUTS & SILICON

Grout joints are used to allow any movement of the tiles and should be a minimum of 3mm. It is not possible to 'butt joint' tiles with the exception of Split face feature wall materials which are designed to be fitted this way.

Stone tiles with a textured surface tend to have grout joints of 6-10mm, whereas smoother Honed and Polished stones can be jointed at about 3-5mm.

The width of joint selected should be sufficient to accommodate any variation in tile size. When fixing a mix of sizes the grout gap should vary in width due to the desired layout of the tiles.

Grout is available in a variety of colours. The choice of grout colour will also impact the colour of adhesive required. For example, a grey adhesive may shadow through a light grout thus it is best to compliment the grout and adhesive colours.

'Slurry' or 'flood' grouting with the appropriate colour is necessary with unfilled stones to fill naturally occurring pits.



Grouting should not take place for at least 12 hours after the tiles have laid. Grout joints should be completely clear of any building dust or residue. Any grout residue on the surface of the tiles should be wiped off as part of the grouting process intermediately. Any grout residue left on the surface may prove difficult to remove if left for too long.

All stone tiles should have an initial sealant coat applied after fixing and prior to grouting as some tiles may absorb pigments from the cementitious. Heavily pigmented grouts may be subject to efflorescence as the salts which hold in the pigmentation are released as part of drying.

All silicone used must be non-acid cure brands.

## **SUBSTRATES/FOUNDATIONS/UNDERFLOOR HEATING**

The key to preventing problems occurring after tile installation is the correct preparation of the substrate prior to fixing. All substrates that are to be tiled on, floor or wall, should always be suitably prepared. They should be clean, flat, level, free from movement and free from anything which could be deleterious to adhesion.

Correct identification of the substrate is vital to ensure the correct advice and ancillaries are provided. With the increasing use of large format & Splitface materials on walls, it is imperative to ensure that the substrate has a suitable weight bearing capability to accommodate the desired material.

For guidelines on fixing to specific substrates please call us for further information. We have a team dedicated in natural stone installations.

## **CUTTING**

Stone is best cut with a bench saw with a diamond blade. The stone should be washed after cutting to remove all dirt and cutting paste . Please note that silica dust can be found in natural products and is recommend that safety and health pre-cautions are used whilst cutting.

## **STORAGE**

All stone is best stored in a dry area where it will not be affected by the weather. At the very least ensure coverage with a tarp.



# SEALING NATURAL STONE:

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It is crucial to understand that no two pieces are the same when sealing natural stone. Some natural stones are more porous than others, some tend to stain easier and some manage just fine.

When sealing natural stone it's an industry recommendation that you seal everything on initial application. Doing so will allow you to keep your stone looking beautiful, avoid damages and will allow easier maintenance & cleaning.

**Please note – DO NOT USE A ROLLER.**

Sealing stone can be done by yourself or by a hired professional. The advantage of hiring a professional is the convenience of professional application, cleaning and preparation. If the job is quite small and you're handy with the tools with the right guidance you should seal it yourself.

## **Range of sealers to use for limestones:**

*\*\*RMS Natural Stone only provide a selection of tile sealers made by Australian company Environex. All sealers have been tested with our stone.*

- Synergy TSL : Used for wet areas and pools ( coping tiles to be dipped sealed )
- Tuscan TSL : Used for everything else.
- Enviroseal : Used as a winter sealer or pre-seal.

## **ANTI SLIP TREATMENTS**

If the desired P rating cannot be achieved by the finish you are after we can perform anti-slip treatments with certified results. Please contact us for further information.



# MAINTENANCE AND CLEANING

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Like any surface, stone will require a degree of maintenance. The correct sealing from the start is the key to minimal maintenance. Heavily trafficked areas will require more maintenance than those that are seldom used.

The main maintenance regime required for stone is regular sweeping and vacuuming. In addition, the floor should be mopped regularly with a neutral routine cleaner formulated specifically for use with all tiles and natural stone products. The use of abrasive, acidic or alkali household detergents should be avoided as they can remove the tile's surface sealant or in extreme cases damage stone or porcelain.

# NATURAL STONE TOLERANCE

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The information below is the world standard.

Size variations of natural stone products are deemed 1st quality when they fall within these

## SIZE TOLERANCE.

(vii) Wall and floor stone all finishes world standard

(aa) Tolerances of length and width & thickness 0.6 M<sup>2</sup> and under = + or - 1.5mm  
over 0.6 M<sup>2</sup> = + or - 2.0mm

(ab) Panels diagonals + or - 4.0mm

(ac) Flatness, twist of panels + or - 2.0mm

Acceptable Characteristics Stone tiles are made from naturally occurring materials and a variation in colour and/or surface finish may occur. It is the responsibility of the user to inspect tiles prior to laying. Minor marks and small chipping are not structural and therefore not considered defects. Any tile with excessive chipping or variation in thickness and dimension prior to laying, may be subject to a warranty claim.