CONTENTS

Size & weight .................................................................
Fact Sheets – suitability for applications ......................
Handling & Storage ........................................................

FABRICATION INSTRUCTIONS

Tools & equipment ...........................................................
Basic Fabrication Method for cutting Porcelain Tiles on wet saw ..............................................
Basic Fabrication Method for cutting Porcelain Tile cut outs, holes by hand powered tools ............
Cut outs for under-mounted or surface mounted sinks ..............................................................
Edge Treatments ..............................................................
Adhesives for substrates & Mitres .....................................

INSTALLATION TIPS

Preparing Base Cabinet unit substrates .............................
Overhangs ......................................................................
Safety Guidelines ...........................................................
Care and Maintenance ....................................................
Bella Case Accessories ...................................................
Contact ...........................................................................
Bella Porcelain Tiles are manufactured by one of Europe’s leading porcelain & ceramic suppliers based in Italy. The environment has always been an important focus in the production of the porcelain architectural surface products. They are and always have been sustainable, green and environmentally friendly. Made from 100% all natural minerals, they are sustainable for the harmful elements that have been left out: they contain no sealants, waxes, epoxies, man-made binders or artificial colouring agents that could add to harmful VOC off-gassing after installation.

SIZE & WEIGHT
Bella Porcelain Tile size specification:
Tile size: 3000 x 1500 x 6mm Weight: 14.67kg/m²
Total area: 4.5m².
Standard cut to size formats – project orders over 300m².
1500x1500, 1500x750, 750x750, 750x375.
Natura Timber Effect: 2400x240x6mm.
Bella comes in either a matte or polished finish pending on the choice of finish – please refer to web site.

FACT SHEETS
Applications - Bella applications include: all external wall cladding, internal floors & wall linings, shower recesses, kitchen counter top/splash backs, vanities, and applications over existing floors or walls.
Suitable for all domestic, commercial, retail, multi-residential and refurbishment projects.

- Bella Tiles are made from 100% natural material with 40% recycled content. No chemical binders or resins are used.
- Bella Tiles are UV resistant and can be used externally.
- High Strength and scratch resistance.
- Thermal shock resistance.
- Stain and mould resistant.
For manual handling and subsequent laying of the Bella tiles, in order to guarantee the operators’ safety and the integrity of the tiles, it is strongly recommended to use a frame with suction cups, available upon request, particularly suitable for large dimension Bella formats (e.g. 300 x 150 cm – 150 x 150 cm) whereas on smaller Bella formats (e.g. 150 x 75 cm) two double suction cups are sufficient.

HANDLING Processing stages
- Position the frame with suction cups on the tile and make sure that the cups adhere to it perfectly.
- For horizontal handling (on the surface), put the tile into a vertical position and use the wheels applied to the handling frame.

Note: Suction cups only work effectively on face of tile and not the rear.

INSTRUMENTS REQUIRED
The instruments for lifting and handling the tiles can be chosen according to the size of the tile and the activities to be performed on the site, in particular:
- Frame with suction cups for handling large format tiles;
- Double suction cups for handling tiles with format up to 150 x 75 cm.
In achieving quality workmanship it is essential that the correct equipment & cutting methods are used.

**BASIC EQUIPMENT.**

Normal processing equipment that is used for marble & Granite is suitable for porcelain tiles. Blades & milling tools must be suitable for wet cutting porcelain.

For manual handling & subsequent installation of Bella Tiles in order to guarantee the operators safety and integrity of the tiles it is recommended to use a frame with suction cups – (see photos handling).

**BASIC FABRICATION METHOD & TIPS OR CUTTING PORCELAIN TILES ON WET SAW**

- Must use a solid base, such as a flat stone tile – slightly larger than 3000 x 1500
- Continuous water flow
- Only run slow cuts
- Use a superior quality continuous porcelain blade
- Use handling equipment as required
- On mitre cuts – avoid sharp edge mitres
- Some fabricators weigh down tile, to avoid any flex or vibration in product when cutting.
BASIC FABRICATION METHOD FOR CUTTING PORCELAIN TILES, CUTS OUTS, HOLES BY HAND POWERED TOOLS

Bella Tiles can be easily processed by using some simple hand tools. It is recommended to process the tiles on a flat work surface, at least 5 cm longer than the tile from each side or double suction cup.

It is recommended to perform the cutting operations with at least two operators. One operator is sufficient for making the holes.

CUTTING Instruments required
Depending on the type of cut and process to be applied to the tile, the recommended types of tools are listed below:

• Handling frame with suction cups or double suction cups;
• Cutting guide with cutting carriage for linear cuts of 150/300 cm;
• Cutting pliers;
• Wet core bits;
• Angle grinder with diamond blade;
• Diamond buffer.

SCORING:
To guarantee correct scoring, the pressure and movement of the cutting carriage must be constant along the whole length of the cut.

• Score one end of the tile by 15 cm pushing the cutting carriage towards the edge of the tile.
• Complete the scoring up to the opposite of the tile.

MARKING Processing stages
Linear cuts up to a maximum length of 3m

• Mark the portion to be removed at the ends of the tile.
• Position the cutting guide with cutting carriage so that the references on the guide coincide with the lines marked on the tile. Lock the cutting guide with the cutting carriage in place using the suction cups.
CUTTING OFF:

- Using the cutting guide move the tile until the scoring line protrudes by 5/10 cm from the work surface.
- Release the cutting guide from the suction cups and move it towards the middle of the tile.
- Start the cutting off process by positioning the cutting pliers in line with the line scored on the tile. Exert progressive pressure until you notice that the cutting off process has begun.
- Go to the opposite side and position the cutting pliers in line with the line scored on the tile. Exert progressive pressure until you notice that the cutting off process has begun.
- To complete the cutting off process, one or more operators must grip the portion to be removed and exert progressive pressure downwards.

- The finishing of the edges on the cut side must be carried out using the special diamond buffer.

L-SHAPED CUTS
For L-shaped cuts (holes for electrical boxes, internal corners) it is recommended to round off the internal angle by making a hole first with suitable wet core bits.

SQUARE CUTS/CUT-OUT
Mark the portion to be removed on the tile. To limit the possibility of breaking, it is recommended to make a 7mm hole in line with the point where the two lines marked on the tile meet. With an angle grinder equipped with a diamond blade, follow the marked lines.

RECTANGULAR HOLES
- Mark the sides of the portion to be removed on the tile.
- Make 7mm holes in the 4 corners.
- Using an angle grinder equipped with a diamond blade join the 4 holes.
ROUND HOLES Processing stages

- Position the Bella Tile on a solid, nonslip surface (e.g. wood or concrete). Spray water onto the area where the hole is to be made.
- Start to make a hole at an angle of 75°-85° and penetrate into the tile with a depth of about 1-2mm.
- Keep the drill/screwdriver at a 90° angle and make circular movements with an angle of about 5°-10°. Do not exert too much pressure. Do not push straight downwards. Make sure there is enough water to wet the cutter.
- Clean up the scraps once the hole has been made.

INSTRUMENTS REQUIRED

Depending on the type of hole and process to be applied to the tile, it is recommended to use the following instruments:

- Handling frame with suction cups or double suction cups.
- Drill/Screwdriver.
- Wet diamond core bits (cup wheel cutters).
- Angle grinder with diamond blade.
FLOOR LAYING

DESCRIPTION AND TECHNICAL FEATURES

Laying Bella Tiles require similar laying conditions to those required for traditional format tiles. Bella Tiles require the adhesive to be applied both on the setting bed and on the back of the tile.

Bella Tiles for flooring require the following conditions:

- Dry and seasoned.
- Planar and free of cracks.
- Cleaning of dust, debris and removal of concrete lumps.
- Compact and resistant.
- The substrate must be uniform and have already completed the shrinkage of maturation.

INSTRUMENTS REQUIRED

- Check with Lusso for recommended adhesive
- 3x3mm square toothed trowel and 15mm round toothed trowel.
- Frame with suction cups for handling or double suction cups.
- Non-bounce plastic mallet 170x370mm.
- Levelling system: base clip + wedge + pliers.
BONDING TO THE FLOOR

• Ensure that the surface to be covered is solid, flat and free from dust and oil/grease.

• Use the adhesives described mixed according to the specifications indicated in the technical data sheet of the chosen adhesive.

• Spread the adhesive onto the surface to be covered with a 15mm round toothed trowel across an area of 5/10 cm more than the dimensions of the tile.

• With the tile in a vertical position on the handling frame, spread the adhesive onto the back of the tile with a 3x3mm square toothed trowel.

• Using the frame with suction cups, bring the tile into a horizontal position and lay it.

• To guarantee uniform bonding of the tile, the special 170x370mm non-bounce plastic mallet must be used, tapping from the middle towards the edges so as to remove any air pockets between the back of the tile, the adhesive and the surface to be tiled.

• Using the levelling system.

LEVELLING SYSTEM

The levelling system aims to guarantee perfectly levelled floors simply and quickly, eliminating any unevenness between. The levelling system is strongly recommended for laying Bella Tiles.

INSTRUMENTS REQUIRED

• Base clip.

• Wedge.

• Adjustable pliers for installing floors/wall tiles.

APPLICATION OF THE LEVELLING SYSTEM

POSITIONING THE BASE CLIP

• After spreading the adhesive, insert the base clip below the Bella Tile on the 4 sides.

• Depending on the format of the tile, position one or more supports for each side of the tile.

• Position the tile.

INSERTING THE WEDGE

• Insert the wedge in the slot of the support, taking care not to exceed the breaking point.

• To make inserting the wedge easier, it is recommended to use the adjustable pliers.

REMOVING THE SUPPORT

• Once the adhesive has dried, the protruding part of the support can be separated from the base clip.
WALL COVERING

BONDING TO THE WALL

- Ensure that the surface to be covered is solid, flat and free from dust.
- Check with Lusso for recommended adhesive.
- Spread the adhesive onto the surface to be covered with a 15mm round toothed trowel across an area of 5/10 cm more than the dimensions of the tile.
- Make the final application of the adhesive, taking care that the rows always run in a vertical direction to facilitate expulsion of air from the centre of the tile.
- With the tile in a vertical position on the handling frame, spread the adhesive onto the back of the tile with a 3x3mm square toothed trowel.
- Using the handling frame in a vertical position lay the tile.
- To guarantee complete bonding of the tile and eliminating any air, tap from the middle towards the edges using the non-bounce plastic mallet.
- Before gluing the next tile, you can fix the retractable mechanical hook on the wall using special nails (length 27mm) with a gas nailer. In order to ensure the quality of the attachment of the mechanical hook, we recommend the use of a suitable gas nailer able to ensure a constant supply of energy.

The laying system with hidden mechanical safety hook on 6mm Bella Tiles allow the wall covering to be installed in complete safety with a great impact.

INSTRUMENTS REQUIRED

- Handling frame with suction cups.
- Check with Lusso for recommended adhesive.
- 15mm round toothed trowel.
- 3x3mm square toothed trowel.
- Gas-powered nailing machine and relative nails.
CUT OUTS FOR UNDER-MOUNTED OR SURFACE MOUNTED SINKS.

Cut outs can either be done with a Bridge wet saw or wet CNC.

Square cuts – use a diamond core drill at each corner, then cut with saw.

Curved corners - for under mounted basins - curved cuts can be considered in conjunction with equipment limitations.

Under mounted – uses a diamond core drill, diameter to suit radius of curve and cut with saw.

Exposed edges are best finished to minimise potential for chipping, some examples include arising, half bullnose, bullnose, pencil round etc.

Edge Treatments – with Bella Tiles, various methods can be utilised to achieve a variety of outcomes. Many kitchen bench tops are now being manufactured with a slim natural profile using a straight edge that does not require polishing (edges can be polished, if required).

Mitred edges – a mitred edge can be achieved as per picture middle right, it is recommended that the junction between the mitred be suitably worked so as to minimise sharp edges, generally a 1mm aris is effective. When setting up mitre machine, avoid sharp edge mitres.

Other edge options - other edges that can be achieved include butt join, birds beak etc.

Apron returns – can be produced (see Mitred Treatment photo). In this example case study a 40mm apron with mitred joint was fabricated. Using a 9mm FC substrate to adhere Bella to, 19mm marine ply packers/spacers, 9mm FC as a base substrate sitting over cabinet battens. It is up to the fabricator to work out best solutions pending on skill set. CFC, FC, Marine Ply, medium grade ply are all products that may be suitable for the substrate, that is, if a substrate is required at all onto smaller returns.

Adhesives for substrates & Mitres – Check with Lusso for recommended adhesive

Repairs – for chips and other, check with Lusso for recommended products.
PREPARING BASE CABINET UNITS
Generally use a base substrate such as CFC, FC or other. Do not insert Bella Tiles over timber support bench battens without a suitable substrate.

OVERHANGS
Recommend flush finish to benches or 10mm overhang. If larger over hangs are required for example 200mm, use a support substrate or brackets to minimise any potential damage to material due to heavy impact.

CARE AND MAINTENANCE
Bella Tiles are stain resistant, being a non-porous material but care must be taken to immediately clean of stains, especially on polished bench tops. Best way to ensure stubborn stains do not occur is to wash away stains such as red wine, food, drinks, using warm water and a soft cloth.

For stubborn stains use a nonabrasive cleaning product, sugar soap or normal house cleaning products. Do not use cleaners that have high alkaline PH levels thoroughly rinse the surface with clean water to remove residue.

Heat resistant – although Bella is thermal shock resistant, it is always advisable to use a place mat or similar when placing hot pots on the bench.

SAFETY GUIDELINES WHEN FABRICATING

PROTECTIVE WEAR
Wearing an approved face mask is recommended when fabricating Bella. Always cut and fabricate with wet diamond tools and take appropriate measures to provide efficient ventilation in the work area. Always wear approved eye, boot & hand protection when fabricating stone.
BELLA ACCESSORIES

The Bella cutting kit is available from Lusso. The kit is developed to assist in the cutting of the tiles in smaller project applications, cut outs and in particular at site works. It is also a guide for recommended tools, methods & equipment that can be sourced locally.

BELLA CASE PLUS KIT COMPRIZES:

- Cutting guide with cutting carriage for linear cuts of 150/300 cm
- Cutting pliers
- Diamond buffer
- 6 wet diamond core bits cup wheel cutters (dimension Ø 60mm, 40mm, 35mm, 10mm, 8mm and 7mm)
- 3x3mm square toothed trowel and 15mm round toothed trowel
- Non-bounce plastic mallet 170x370mm
- 2 double suction cups
- Handling frame with suction cups
- Handling trolley for tile large sizes
The extremely reduced 6mm thickness, together with the advanced technology, allows an appropriately powerful band of light to travel through the Bella Onice tiles and backlight the material.