

TECHNICAL BULLETIN

APPLICATIONS OF TILES ONTO PRE-EXISTING TILES

INTRODUCTION & SCOPE

In internal applications it is possible to apply ceramic tiles over existing or in-situ tile finishes and Ardex recommends a number of adhesive tile systems that allow this application to be done. This bulletin discusses some of the issues with this method of laying tiles that will assist in achieving a satisfactory result.

QUALIFICATIONS

The following points need to be taken into consideration before undertaking a tile-on-tile installation.

- The existing tile surface must be sound with no loose or drummy tiles and the final installation is still reliant on satisfactory adhesion of the preceding one. Mechanical preparation will usually highlight unsound tile surfaces.
- This procedure does not include certain external applications including high facades & walls, cantilevered verandahs or decks, and tiled driveways as these areas can be subject to high stresses and movements.
- Shaded external walls and floors with adequate falls to prevent ponding water are acceptable.
- Swimming pools and ponds are not suitable for tile on tile installations by these procedures and this is *not* recommended as a standard practice.

- Near 100% coverage should be achieved with the new adhesive bed on the existing tile top face and new tile rear face (AS3958.1-2007).
- Pebblecrete surfaces must be removed as per Technical Bulletin DTB113.

Where the area to be tiled is a wall, the individual tile weights, and also weights per square metre must be taken into account. The first layer of tiles and adhesive will be loaded by the second layer, but then both layers will cumulatively load up the substrate.

Installations must comply with DUNLOP recommendations for heavy tile installations and also maximum heights described in Technical Bulletins DTB001. Mechanical fixing INTO the substrate may be required. Application of heavy and large format tiles over existing tiles should not be considered a safe installation.

THINGS TO CONSIDER ABOUT THIS APPLICATION

The tiles will move according to thermal changes, and to some extent moisture contents. Having two layers of tiles can produce differential movements and for this reason external areas exposed to weather extremes requires careful consideration before installing the second layer of tiles.

Where the surfaces are neither cleaned nor ground, depending on the system to be used, loss of bond between the new tiles and the existing tile substrates; can occur due to the presence of sealers, dirt, grease or other contaminants.

As a minimum when not grinding internal surfaces, a film-less detergent or a degreaser should be used to remove any surface contaminants followed by adequate rinsing with clean water. This is particularly important in areas such as kitchens, and also recessed grout lines.

- Movement joints in the underlying tiles must be continued through the new layer, and control joints included as per AS3958. Failure to do so can result in cracking.
- A new layer of tiles in a shower recess will not remedy waterproofing problems, unless the leak itself is addressed.

PROCEDURE

There are three ways this application can be done depending on the degree of surface preparation. However, as with all tile installations correct preparation leads to a good result and conversely poor preparation invariably produces problems.

Option 1 – Minimal preparation (Internal Only)

- With this method the tiles must be thoroughly washed down with sugar soap and any residual oils, fats, dirt, sealers or other contaminants removed thoroughly, rinsed and then allowed to dry. Failure to do so can result in tile de-bonding.
- The tile adhesive that can then be applied to the existing tile surface is DUNLOP TILE ALL (wet or dry internal, no skim coat).

TECHNICAL BULLETIN

Option 2 – Surface grinding of the glaze (Internal Walls-Floors and all External Surfaces)

- The surface glaze on the tiles must be ground a minimum of 80% using mechanical methods e.g. diamond ground, or ZEK® discs on an angle grinder) to a clearly visible surface texture. After grinding the tiles shall be checked for bond quality.
- The surface is vacuumed to remove dust, and then primed with DUNLOP MULTIPURPOSE PRIMER or DUNLOP PRIMER AND ADDITIVE.

- The following tables list adhesives/primers recommended and is also dependent on the substrate type

For special situations where repairs with individual or moisture sensitive tiles may need bonding, DUNLOP Builders Bond (an epoxy) can be used.

Notes

Always refer to the product data sheets for specific usage details.

The information contained herein is to the best of our knowledge true and accurate.

No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application.

Users are asked to check that the literature in their possession is the latest issue.

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Table of Adhesives for INTERNAL Installations to be used when glaze surface is ground away by 80-100%

Tile Type	Internal Walls	Internal Floors
Monocottura or Bicottura. Terracotta Remove glaze and prime with DUNLOP Multiprime / Primer & Additive	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX MULTIPURPOSE MASTIC	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX FLOOR TILE ADHESIVE
Mosaics Remove glaze and prime with DUNLOP Multiprime / Primer & Additive	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX MULTIPURPOSE MASTIC	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX FLOOR TILE ADHESIVE
Vitrified and Glass Grind surface mechanically and prime with DUNLOP Mul- tiprime / Primer & Additive	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX MULTIPURPOSE MASTIC	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX
Marbles/Granite Mechanically remove coatings and DUNLOP Multiprime / Pri- mer & Additive	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX MULTIPURPOSE MASTIC	TILE ALL WALL AND FLOOR FLEXIBLE UNIVERSAL RAPIDFLEX FLOOR TILE ADHESIVE

TECHNICAL BULLETIN

Table of Adhesives for EXTERNAL Installations to be used when glaze surface is ground away by 80-100%
 DUNLOP TILE ALL can be used for all applications

Tile Type	External Walls (shaded)	External Floors (shaded)	External Walls Exposed	External Floors Exposed
Monocottura or Bicottura. Terracotta Remove glaze and prime with DUNLOP Multiprime / Primer & Additive	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL	TILE ALL UNIVERSAL
Mosaics Remove glaze and prime with DUNLOP Multiprime / Primer & Additive	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL	TILE ALL UNIVERSAL
Vitrified and Glass Grind surface mechanically and prime with with DUNLOP Multiprime / Primer & Additive	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL	TILE ALL UNIVERSAL
Marbles/Granite Mechanically remove coatings and prime with DUNLOP Multiprime / Primer & Additive	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL WALL AND FLOOR FLEXIBLE RAPIDFLEX*	TILE ALL UNIVERSAL	TILE ALL UNIVERSAL

* External substrates that are not subject to movements