



SRO901 – TILING ON NEW CONCRETE

Internal Dry Floors only

SCOPE

This recommendation relates to the adhesive fixing of tiles directly onto new concrete internal floor substrates.

PREPARATION

All concrete substrates shall be structurally sound and suitable for bonded finishes. New concrete should be wood float finished (or power float finished) and have completed the recommended (AS3958) 4 - 6 weeks curing and drying period prior to tiling.

Mechanically (i.e. by grinding, shot-blasting or scabbling techniques) prepare the surface to remove all contaminants such as concrete curing compound residues, residues such as plaster droppings, paint over-spray and laitance. Steel trowel finished concrete shall also be prepared to achieve a fine textured profile and open the pores/capillaries in the concrete surface. Vacuum to remove dust.

PRIMING

Prepared standard concrete substrates can be primed using water based primers such as [ARDEX Multiprime](#) or [ARDEX P 9](#). However concrete with a compressive strength greater than 35MPa shall be primed with [ARDEX P 9](#) or [ARDEX P 82](#) primer after mechanical preparation.

TILING

Tiles should be fixed in accordance with Australian Standard AS 3958. Type and size of the tiles determine the selection of the trowel. As a general guide, use at minimum a 10 x 10 x 10mm notched trowel. Achieve minimum 80% coverage in residential and 90% coverage in commercial areas. The tiles must be pressed firmly into the freshly combed mortar bed to ensure good contact with the mortar. Slide the tile at right angles to the notch pattern to ensure maximum coverage on the back of the tile. Tiles with ribbed or keyed back profiles should also be back-buttered to ensure complete coverage. Tiles greater than 400 x 400 mm should be back-buttered. Lift a tile from time to time to check appropriate coverage and that there are no voids beneath the tile. Any surplus adhesive must be removed from the surface of the tile and joints, before the adhesive sets. Do not spot fix.



The following table lists the adhesives to fix different tile types to the prepared concrete

Tile type	Good	Better	Best
Porous Bodied Tiles Terracotta	X7 ; X10 ; X17	X18 ; X52	Abaflex
Glazed Ceramic	X7 ; X10 ; X17	X18 ; X52	Abaflex
Glazed mosaic	X10 ; X17 ; X52	X18 ; Abaflex ; X77	Optima ; X18 with E90
Dense bodied tiles Vitrified/porcelain/glass	X10 ; X17 ; X52	X18 ; Abaflex ; X77	Optima ; X18 with E90
Natural Stone tile <i>Not sensitive to moisture from the adhesives</i>	X10 ; X17 ; X52	X18 ; Abaflex ; X77	WA100 ; S28
Natural Stone Tiles <i>Moisture Sensitive</i>	WA100 ; S28	Refer to Ardex Technical Bulletin TB010	

Note : As an optional add-on, you can use [ARDEX E 90](#) with X77, S28, X18 and X10 as detailed in **TB231**. This will greatly improve their performance and longevity.

GROUTING

Once the adhesive has set, the tiles may be grouted with one of the following Ardex grouts.

- [Ardex FG 8](#) sanded grout for joints from 1 to 8mm and is a general purpose grout available in a large range of colours.
- [Ardex FS-DD](#) un-sanded grout for joints 1 to 4mm. This is recommended for polished tiles with rectified edges as the grout has a smooth finish and is available in a range of colours.
- [Ardex WJ 50](#) sanded grout for joints 5 to 50mm
- [Ardex WA](#) Epoxy 2 part grout available in black, grey or white for installations where high standards of hygiene and/or chemical resistance is required.
- [Ardex EG-15](#) Epoxy 3 part grout for installations where high standards of hygiene and/or chemical resistance is required. It is available in 8 colours and is suitable for grout widths from 1.5mm to 15mm.

Note: Ardex cement based grouts may be mixed with [Ardex Grout Booster](#) for increased performance such as resistance to water penetration, reduced potential for efflorescence, greater strength and flexibility.



MOVEMENT JOINTS

Movement joints are to be included in the new tile finish in accordance with the recommendations of AS3958. These joints are installed (but not limited to) in the following locations:

- Over all existing movement joints in the substrate.
- At all internal corners/changes in direction in the plane of the substrate.
- Along all perimeters where the tiles butt against walls and/or built in furniture.
- Around all penetrations through the tile finish.
- At not more than 6m intervals in both directions of a grid pattern.

Movement joints should be at least 6mm wide and are filled with a flexible sealant such as the [Ardex SE](#) silicone or [Ardex ST](#) silicone for natural stone. Compressible backer rods may be required in deeper joints to maintain the recommended sealant thickness at half the joint width.

Disclaimer:

The recommendation selected is based upon questions answered on the Ardex Australia website. This recommendation is designed as a general application for your described situation and should not be considered site specific documentation for general distribution. Always consult the latest relevant Ardex Technical Bulletins and information on the product packaging and/or product data sheets (available on the Ardex Website). Australian and other relevant standards should be followed during installation. If you have any further questions or would like further clarification please contact the Ardex Technical Services Hotline on 1800 224 070 (9am to 5pm Monday to Friday).