



ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

SRO968 Tiling Internal Wet Areas over Liquid Applied + Sheet Undertile Waterproofing Membranes

SCOPE

This recommendation is regarding the adhesive fixing of tiles in internal wet areas where the walls and floors have been waterproofed with a combination of liquid applied and sheet undertile membranes.

PREPARATION

The standard installation where two different membrane systems have been installed have the liquid applied membrane on the walls and the undertile sheet membrane on the floors with upturns to 150mm high in accordance with AS3740 recommendations.

- The liquid applied membrane installation is described in SR0917. For this recommendation the **ARDEX WPM155R** is nominated.
- The Undertile sheet membrane installation is described in SR0917 using the **ARDEX WPM750** Butynol Undertile sheet membrane

The installed waterproofing membranes must be fully cured and well bonded to the substrate, be dry and clean. The **ARDEX WPM155R** is overlapped by at least 50mm onto the **ARDEX WPM750** sheet membrane upturn on the walls.

PRIMING

Priming of these waterproofing membranes is not required as the nominated ARDEX Tile adhesives are fully compatible with these membranes.

TILING

The installation of the tiles must comply with the adhesive manufacturers' recommendations and with the recommendations of AS3958.

The adhesive fixing of new tiles requires the adhesive layer to be applied in sufficient thickness (minimum 2.5mm under the tile) and coverage to achieve maximum contact between the tile and the substrate. AS3958 recommends at least 90% contact for internal wet area floors and walls. This can be achieved by spreading the mixed adhesive using a suitable notched trowel so the adhesive lines are parallel. Additional adhesive is to be buttered over the back of tiles larger than 400 x 400mm. Each tile is then pressed firmly into the adhesive with a back & forth sliding action to collapse and merge the adhesive lines to achieve maximum contact between the tile and adhesive.

ARDEX generally recommends a 10 x 10mm notched trowel for the adhesive when fixing up to 300 x 300mm sized floor tiles. For larger floor tiles, a minimum 12 x 12mm notched trowel is recommended with additional adhesive buttered over the back of each tile. These trowel sizes ensure sufficient adhesive thickness to accommodate limited movement between the tile and the substrate. Smaller size wall tiles may allow the use of trowels with smaller notch size (e.g. 6 x 6mm) provided the recommended minimum adhesive contact is achieved with minimum voids in the adhesive layer.



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Tile type	ARDEX Adhesives	ARDEX Optional adhesives
Porous Bodied Tiles Terracotta and Glazed Ceramic	X18, X10	X77, Abaflex, MPP, X56, STS8W+E90, Optima
Glazed mosaic	Optima, X18, X10	X77+E90, STS8W+E90, MPP, X56, Abaflex,
Dense bodied tiles Vitrified/porcelain/glass	X18+E90, X77+E90, Optima,	STS8W+E90, MPP, S16+E90, X56, X78+E90
Natural Stone tile <i>Not sensitive to moisture from the adhesives</i>	X78+E90, X77+E90,	X52, STS8W+E90, Optima, MPP,
Natural Stone Tiles <i>Moisture Sensitive</i>	Refer Technical Bulletin TB010	

GROUTING

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

- **ARDEX FG8** sanded cement based grout for joints from 1 to 8mm and is a general purpose grout available in a range of colours
- **ARDEX FS-DD** unsanded cement based 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 limited colour range.
- **ARDEX WJ50** sanded cement based 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 Abapoxy** Epoxy 3 part grout for installations where high standards of hygiene and/or chemical resistance is required. It is available in 5 colours as a fine grade or a coarse grade to suit the size of joints.
- *Note; ARDEX cement based grouts shall 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.



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- 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 5m 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** or **ARDEX ST** silicone. 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).