

# SRO910 – FLOOR TILING ON INTERNAL MEMBRANES (Liquid applied membranes)

#### SCOPE

This recommendation is regarding the adhesive fixing of tiles to compatible ARDEX liquid applied waterproofing membranes (i.e. <u>ARDEX WPM 001</u>, <u>ARDEX WPM 002</u> & <u>ARDEX WPM 155 Rapid</u>) in areas such as shower recess floors. It is assumed the membrane has been applied to structurally sound substrates in accordance with the manufacturers' instructions to the requirements of AS3740-2012.

#### PREPARATION

The applied membrane must be fully dry and free of all surface contaminants such as dust & debris from other trades. Any visible defect such as pinholes or insufficient or incomplete dry film thickness must be rectified by the application of extra coats of membrane before adhesive fixing the tiles. Before application of the membranes, the dry prepared substrates are primed with <u>ARDEX WPM 265</u> or <u>ARDEX Multiprime</u> primer while damp concrete substrates may be primed with <u>ARDEX WPM 300</u> (or <u>ARDEX WPM 368</u>) moisture barrier primers. The prime coats must be dry prior to application of the membrane.

#### MEMBRANE APPLICATION

ARDEX liquid applied membranes are applied by brush or roller over prepared and primed substrates in accordance with the product data sheets. The standard application for these membranes is a minimum of two coats to achieve the recommended dry film thickness with all internal corners/joints filled with neutral cure silicone (e.g. <u>ARDEX ST</u>) sealant forming the bond breakers in accordance with the requirements of AS3740. <u>ARDEX Deckweb</u> polyester fabric is sandwiched/ embedded in the liquid membrane to carry the membrane over the silicone bond breakers.

The <u>ARDEX WPM 155 Rapid</u> membrane can also be used with <u>ARDEX STB</u> tape applied to all internal corners and over the floor waste puddle flange where the installation needs to be done as quickly as possible. This application allows the membrane to be applied to achieve different dry film thicknesses than the standard installation. **Done with STB tape, you do not need the silicone bond breakers.** 

#### TILING

ARDEX tile adhesives are compatible with the ARDEX liquid applied waterproofing membranes and can be applied directly onto the dry membrane – no priming required The mixed adhesive shall be spread over the floor surfaces using a suitable notched trowel in accordance with the recommendations of AS3958. The lines of adhesive are to be parallel horizontally across the floor and additional adhesive shall be buttered over the back of tiles larger than 400 x 400mm. The tile is then firmly pressed into the adhesive with a back and forth sliding action across the lines of adhesive to collapse and merge the adhesive lines to achieve maximum adhesive contact (AS3958



recommends at least 90% contact) between the tile and the substrate. There should be no voids in the adhesive layer.

Be aware of the substrate. If the membrane is on CTU (Ceramic tile underlay), then only adhesives suitable to CTU can be used. These are detailed in SRO904.

	ARDEX suitable adhesives
<b>Porous Bodied Tiles</b> Glazed Ceramic	X10 ; X17 ; X18 ; Abaflex ; X56 ; X77 ; X78 ; Isoflex
Glazed Mosaic	X17 ; X18 ; Abaflex ; X56 ; X77 ; X78 ; Isoflex
Dense Bodied Tiles Vitrified & porcelain	X17 ; X18 ; Abaflex ; X56 ; X77 ; X78 ; Isoflex
Glass	X17 ; X18 ; Abaflex ; X56 ; X77 ; X78 ; Isoflex
Natural Stone tiles	
(excluding Moisture Sensitive Stone)	X17 ; X18 ; Abaflex ; X56 ; X77 ; X78 ; Isoflex
Natural Stone Tiles	
Moisture Sensitive Stone tiles	WA100 ; Refer ARDEX Technical Bulletin TB010

Note : As an optional add-on, you can use **ARDEX E 90** with X78, X77, X18 and X10 as detailed in **TB231**. This will greatly improve their performance and longevity.

## GROUTING

Once the adhesive has set, (in most cases this is overnight but refer to the adhesive datasheet) the tiles may be grouted with one of the following ARDEX grouts:

- <u>ARDEX FG 8</u> sanded grout for joints from 1 to 8mm and is a general purpose grout available in a large range of colours.
- <u>ARDEX FS-DD</u> 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 are required.
- <u>ARDEX EG-15</u> Epoxy 3 part grout for installations where high standards of hygiene and/or chemical resistance are required. It is available in 8 colours and is designed for grout widths 1.5mm to 15mm.



**Note:** ARDEX cement based grouts may be mixed with <u>ARDEX Grout Booster</u> 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 <u>ARDEX SE</u> or <u>ARDEX ST</u> 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).