



ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

SRO958 External Wall Tiling on Sheet Cladding

SCOPE

This recommendation is regarding the installation of wall tiles to selected fibre cement sheet cladding substrates. These are the James Hardie EasyLap™ panel and the BGC Stonesheet™ fibre cement sheeting.

PREPARATION

The cladding sheets are to be installed in accordance with the sheet manufacturers' instructions. All surfaces must be clean and dry.

- The EasyLap™ panel has the overlapping vertical edges fixed over a foam strip placed between the panel and the wall stud frame. This joint is filled with a flexible sealant.
- The Stonesheet™ is fixed to the supporting stud frame with a 6mm (nominal) gap between the sheets that is filled with a flexible sealant.

The application of a waterproofing membrane and/or tile finishes over these joints must maintain these as movement joints in the completed installation.

PRIMING

All surfaces are to be primed with **ARDEX WPM265** and left to dry before proceeding.

WATERPROOFING

Waterproofing is required where the external wall is the outer face of habitable areas.

- All joints between the fibre-cement sheet panels (EasyLap™ and/or Stonesheet™) are to be filled with the neutral cure (**ARDEX ST**) sealant to form the bond breaker over the joint and extending to at least 5mm each side in a flat thin film. The **ARDEX DECKWEB** Polyester fabric is then embedded in the liquid applied membrane as a carrier for the membrane over the bond breaker.

Apply the **ARDEX WPM002** two part waterproofing membrane to the dry primed sheet surfaces in two coats approximately 2 -4 hours apart (dependent on drying conditions at site) to achieve the recommended minimum 1.2mm dry film thickness. (The thickness can be checked using wet film thickness gauges as noted on the product data sheet.) The **ARDEX DECKWEB** fabric covering the bond breakers is to be fully saturated with the liquid applied membrane to conceal the matrix of the fabric and ensuring the edges of the fabric are fully sealed with the membrane. Ensure all creases and air pockets are smoothed out while the membrane is still liquid. Let the membrane dry for 24 hours prior to adhesive fixing the tiles.

TILING

Adhesive fixing of tiles to external wall substrates is extremely dependent on the weight of the tiles and the contact of the adhesive to both the substrate and the back of each tile. ARDEX Technical Bulletins **TB001** & **TB148** provide guidelines (in the absence of an Australian Standard) for the adhesive fixing of tiles up to 32kg/m² and up to 3m height. When these limits are exceeded, additional mechanical support fixings are recommended. The ARDEX bulletins suggest metal angles as one type of suitable support fixing although there are other proprietary systems now available. The concern is whether or not the wall construction can support the weight of heavy tile finishes and maintaining the seal around fixing penetrations through the applied membrane.

Page 1 of 3



ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

SRO958 External Wall Tiling on Sheet Cladding

The following table lists adhesives suitable for external applications.

	ARDEX adhesive	Optional ARDEX adhesive
Porous Bodied Tiles Terracotta Glazed Ceramic	WA100, X18+E90, WA100, X18+E90,	Optima, Abaflex, X77+E90 Optima, Abaflex, X77+E90, STS8W+E90,
Glazed Mosaic	Optima, X18+E90, X77+E90	WA Epoxy
Dense Bodied Tiles Vitrified & porcelain Glass	Optima, X18+E90, WA100 Optima, WA Epoxy,	STS8W+E90, X77+E90, X77+E90, X18+E90,
Natural Stone tiles (excluding Moisture Sensitive Stone)	WA100, X77+E90,	Optima, X18+E90, STS8W+E90, WA Epoxy
Natural Stone Tiles Moisture Sensitive Stone tiles	Refer ARDEX Technical Bulletin TB010	

The mixed adhesive shall be spread over the wall surfaces using a suitable notched trowel in accordance with the recommendations of AS3958. The lines of adhesive are to be parallel horizontally across the wall 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 contact between the tile and the substrate. This pressing & sliding action reduces the voids behind the tiles so that water penetration and the occurrence of efflorescence is minimised. ARDEX recommends a minimum adhesive contact of 90% between the tile and the substrate on all external walls.

GROUTING

Once the adhesive has dried for 24 hours, the tiles may be grouted using one of the flowing 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.
- *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.*



ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

SRO958 External Wall Tiling on Sheet Cladding

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 and including the vertical sheet joints.
- 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 3.5m intervals (e.g. each storey height) in both directions of a grid pattern, especially where dark coloured tiles are to be installed.

Movement joints should be at least 6mm wide and are filled with a flexible sealant such as the **ARDEX SE & ARDEX ST** silicones. The **ARDEX SE** silicone is an acetoxy curing product suitable for general application with fired clay tiles while the **ARDEX ST** is a neutral cure sealant for use with natural stone tiles. 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).