



ENGINEERED SOLUTIONS
FOR TILING, FLOORING & WATERPROOFING

ARDEX SYSEM RECOMMENDATION **TILEMAX – Pool Coping** **ASR - 20250120**

Date: **20.01.2025**
Prepared by: **Russell Jordan**
Prepared for: **TILEMAX**
Project: **Various**
Environment: **New Installations**

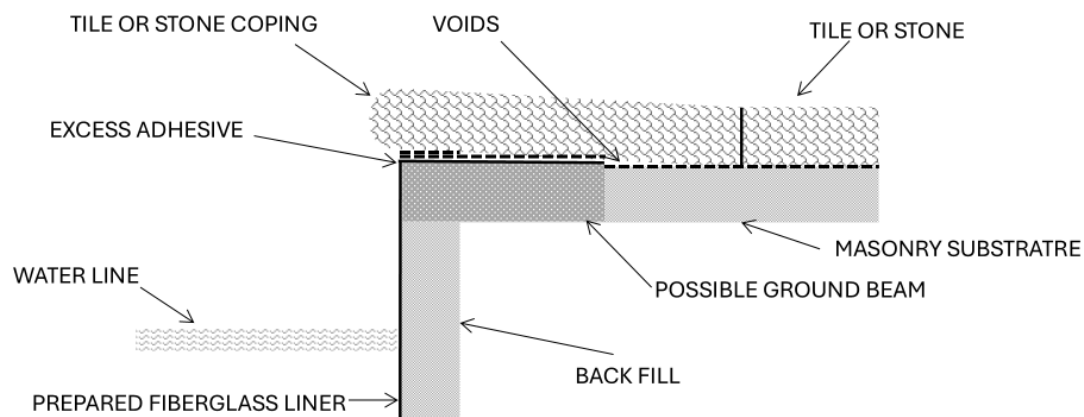
Introduction

Installation of pool coping tiles/stone on to either a masonry-based substrate or fiberglass liner along with the installation of water line tiles again on both substrate types.

Coping

General Note

An inspection should be carried out before any tile commences to ensure that the pool shell and the pools surround are on the same plane. If the transition is not suitable additional levelling or patching with [ARDEX A46](#), [ARDEX A48](#) or [ARDEX K301](#) products may be required. This is to avoid excess adhesive under the coping or voids under the coping resulting in poor bond strength.



Masonry Based

Of the two types of pool installation covered in this ASR, the installation on to a masonry-based structure in some regards is less problematic.



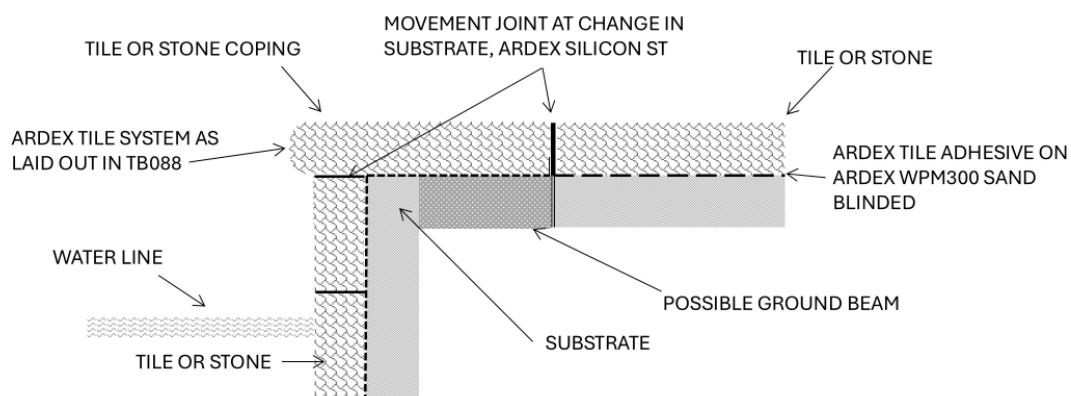
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Using [ARDEX Technical Bulletin TB088](#) for the installation of a tile system in to a masonry pool as the guide, the pool coping is installed in the similar manor.

Taking note of where the tiles are on the coping, they can be subjected to high leverage forces when swimmers climb in and out of the pool, using the tile as a grip. High bond strengths are required to resist this force and adhesives such as [ARDEX WA100](#) can provide that strength.

The tiles often span the pool ring boundary (ground beam) where the pool masonry contacts the surrounds (usually masonry). Tiles must not be bonded across this joint as the two materials can move to different degrees resulting in tile de-bonding or cracking. (Please see detail below).



Fiberglass Liner

With regards to tiling *within* a fibreglass pool, pond shell or water feature *below* the waterline, ARDEX *does not recommend* the use of any of its adhesives, and this applies to the tile adhesives recommended in masonry pools, ARDEX OPTIMA and ARDEX X77 + ARDEX E90 etc.

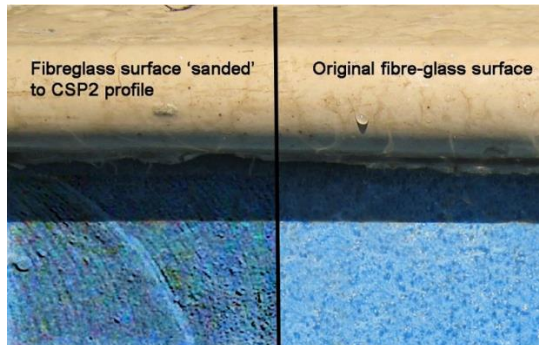
Swimming pool copings

The more common application is applying water line border tiles, or copings around the pool edge. As with other fibreglass applications, to obtain maximum adhesion the surface needs to be roughened, and by doing so the waterproofing qualities may be compromised, and the glass fibres exposed. It is advisable to check with the pool manufacture to ensure warranty conditions are not breeched.



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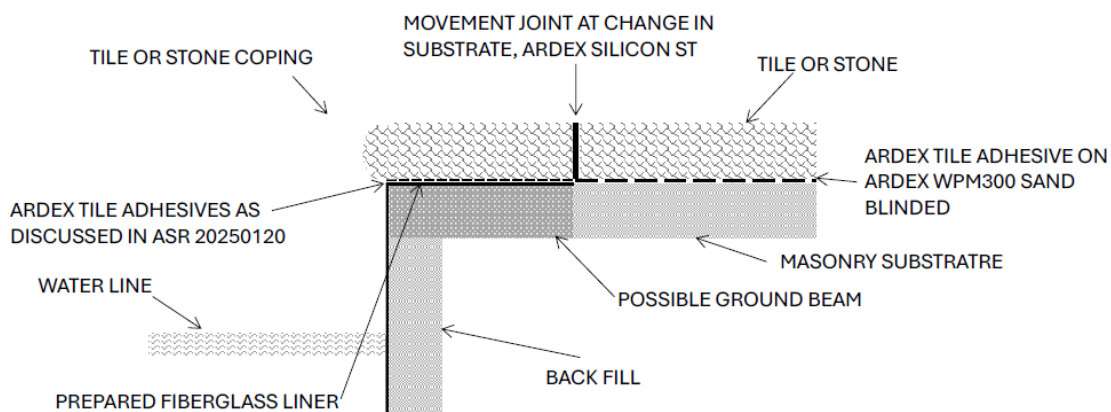
Roughened means, that the surface of the fibreglass gel coat shall be mechanically prepared such that 100% of the surface is treated to prepared, a rough surface finish equivalent appearance to CSP2 or CSP3 finished concrete, (see fig above).

The fibreglass fibrils must be visible.

- Prepare by grinding to expose fibres
- Apply continuous skim coating of [ARDEX OPTIMA](#) to seal exposed fibres
- Adhesive fix tiles to skim coat, again using ARDEX OPTIMA

Where the tiles are on the coping, they can be subjected to high leverage forces when swimmers climb in and out of the pool, using the tile as a grip. High bond strengths are required to resist this force and adhesives such as [ARDEX WA100](#) can provide that strength.

The tiles often span the pool ring boundary (ground beam) where the liner contacts the surrounds (usually masonry). Tiles must not be bonded across this joint as the two materials can move to different degrees resulting in tile de-bonding or cracking. (Please see detail below).





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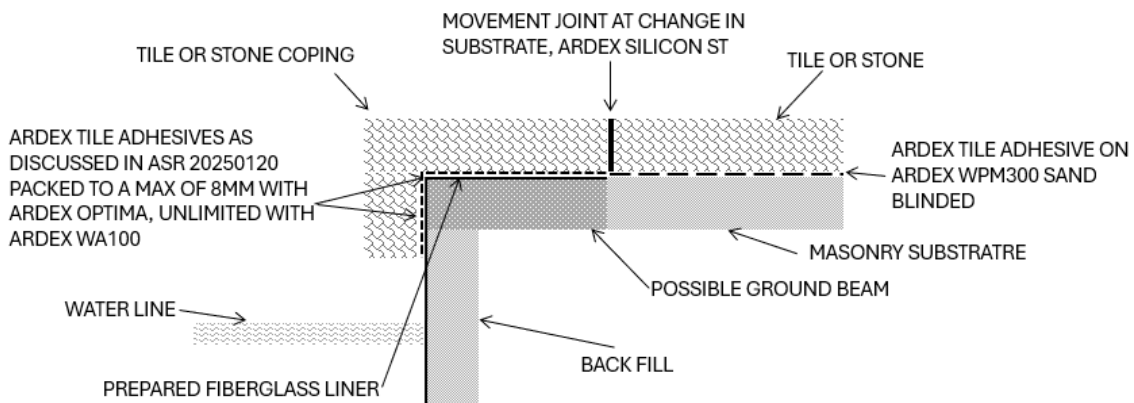
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The tile adhesive ARDEX OPTIMA/WA100 will bond the tiles at the coping but users need to recognise that good adhesion is dependent on the correct surface preparation mentioned.

Swimming pool copings with drop down

The preparation for the installation of the coping tile with drop down is the same as previous mention. All fiberglass surfaces must have fibrils showing on all surfaces.

If the pool edge is not straight this may necessitate the packing of the drop down of the coping. The packing adhesive can be either ARDEX Optima or ARDEX WA100. The max packing for ARDEX Optima is 8mm and unlimited for ARDEX WA100.



Water Line Tiles

The more common application is applying water line border tiles, or copings around the pool edge. As with other fibreglass applications, to obtain maximum adhesion the surface needs to be roughened, and by doing so the waterproofing qualities may be compromised, and the glass fibres exposed. It is advisable to check with the pool manufacture to ensure warranty conditions are not breached.

Please note where sheet mosaic tiles are used, they must be of a type that is not affected by water immersion. The tiles must not be fixed to any 'backing' material such as mesh or with an adhesive that is water softening or soluble.

Tiles need to have at least 85% of the back face of the tile available for the adhesive contact.



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Masonry Base

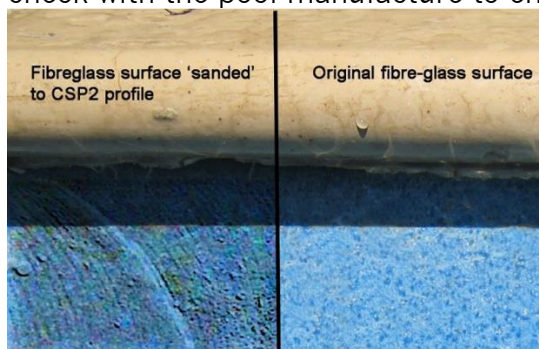
Install tiles in line with ARDEX TB088 as previously noted

Fiberglass Liner

The bonding of tiles to the upper edge of the fiberglass pool liner and to just below the waterline is acceptable, but not at depth below the waterline. For general tiling *within* a fiberglass pool, pond shell or water feature *below the waterline*, ARDEX *does not recommend* the use of any of its adhesives, and this applies to the tile adhesives recommended in masonry pools, ARDEX OPTIMA and ARDEX X77 + ARDEX E90 etc.

Water line tiles

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Roughened means, that the surface of the fiberglass gel coat shall be mechanically prepared such that 100% of the surface is treated to prepared, a rough surface finish equivalent appearance to CSP2 or CSP3 finished concrete, (see fig above).

The fiberglass fibrils must be visible.

- Prepare by grinding to expose fibres
- Apply continuous skim coating of ARDEX OPTIMA to seal exposed fibres
- Adhesive fix tiles to skim coat, again using ARDEX OPTIMA
- ARDEX WA100 is also suitable.



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Important Notes

It is also important to follow the manufacturer's instructions and recommendations for each product, including the mixing, application, curing, and storage conditions. The products should be used within their shelf life and expiry date and stored in a cool and dry place.

The all ARDEX NZ products should be installed by qualified and experienced installers, who have the necessary tools and equipment, and follow the relevant industry standards and codes of practice. The system should be inspected and tested for sound insulation performance after installation, and any defects or issues should be reported and rectified promptly.

This recommendation has been provided in good faith by ARDEX New Zealand- The quality and control of products that are not ARDEX are the responsibility of the supplier.



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Report Basis Conditions

1. All constructions and installations shall comply with the relevant sections of the most recent edition of the New Zealand Building Code 2004 (NZBC). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections of the NZBC.
2. All flooring installations shall comply with the relevant sections of the most recent edition of AS1884 (resilient) or AS/NZS2455 (textile). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
3. All ceramic tile related installations shall comply with the most recent edition of the Australian Standard AS3958 and where applicable ISO13007. Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
4. All waterproofing related installations or products shall comply with the relevant sections of the most recent editions of the Australian Standards AS/NZS4858 (performance), NZBC E2/AS1 Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
5. Any local/area specific guidelines must be followed.
6. Ardex reserves the right to reference external materials such public domain documents on the internet, professional literature and textbooks, and government or professional body data.
7. Where Ardex/Dunlop Technical Bulletins and Datasheets are discussed, they can be sourced from the website www.ardex.co.nz and are considered 'public domain documents'.
8. This is a site-specific document and is intended for use with this site and can't be applied to another site without written approval from ARDEX. This document is not all encompassing and is intended to be read with ARDEX Technical Datasheets and other literature.
9. This document is valid for 2 years. It must be reviewed if the work is not completed in that time.
10. ARDEX is not responsible for third party products and systems that are part of the installation or interactions resulting therefrom.
11. This recommendation is made in good faith on the basis of supplied information to ARDEX representatives and what may have been observed on site
12. ARDEX are not qualified designers, and this document is only designed to assist such a professional in formulating their site-specific legal documents.
13. All products mentioned are compatible with each other and warranted as fit for purpose.