

WP115 Waterproofing Retaining Walls on Strip Footing

Preparation:

1. All surfaces to be waterproofed must be firm, clean, dry, sound and smooth. All grease, oil, wax, curing compounds, loose material, paint and any other contaminants must be removed, masonry surfaces must be pointed flush and surface defects repaired. New concrete must be cured for a minimum of 28 days.
2. External corners to be waterproofed must be bevelled to ensure a smooth transition of membrane from vertical to horizontal surfaces.

Installation:

1. Repair all surface defects on retaining wall masonry surfaces with **Aftek Penapatch Structural HB80**.

Aftek Penapatch Structural HB80 is a high strength; high build shrinkage compensated structural repair mortar.

2. Install a Gunnable Waterstop around all penetrations. The waterstop must be packed in between at least a 50mm cover of **Aftek Penapatch Structural HB80**.

Gunnable waterstop products are caulk grade, single component swelling pastes used to stop water infiltration through concrete construction joints.

3. Apply **Soprema Elastocol Stick** primer to the previously prepared substrate. Only prime an area that can be covered within a work day. If the primed area is not covered with the membrane within 6-8 hours, the primer must be re-applied.

Soprema Elastocol Stick is a primer designed to enhance the adhesion of self-adhesive membranes on porous surfaces.

4. Install a 300mm reinforcing strip of **Soprema Colphene 3000** to all construction joints and transitions.

Soprema Colphene 3000 is a self-adhering membrane which is manufactured from a select blend of elastomeric SBS modified bitumen.

5. Install Soprema **Soprema Colphene 3000** to the retaining wall. Pressure must be applied over the entire membrane surface utilizing an appropriate neoprene pressure roller to ensure adequate adhesion is achieved.

6. Seal the bottom membrane edge to the concrete footing with **Soprema Sopramastic** or **Soprema Alsan Flashing Quadro** incorporating **Soprema Soprema Alsan Fleece 165 B**.

Soprema Alsan Flashing Quadro is a single-component, root and rhizome resistant polyurethane resin used for flameless waterproofing junctions between horizontal surfaces, up-stands and various roof details.

Soprema Alsan Fleece 165 B is a non-woven polyester fleece specially designed to be used as reinforcement and ensures that a minimum layer thickness of the Alsan Flashing Quadro waterproofing resin.

8. Install **Aluminium K Flashing** or **Aluminium Pressure Seal** with appropriate mechanical fixings to protect the exposed membrane edge at the top of the wall. Seal the top of the pressure seal with **WPA MS** or **WPA SPUR**.

Aluminium K Flashing is an extruded aluminium flashing with pre-punched holes, designed for the top termination of sheet membrane systems.

Aluminium Pressure Seal is designed to seal the top edge of sheet membrane systems.

WPA MS is a single component, moisture cured silane modified hybrid sealant.

WPA SPUR is a high quality, professional, universal, low modulus sealant based on hybrid technology.

9. Prime **Aluminium K Flashing** or **Aluminium Pressure Seal** using **WPA 160** primer.

WPA 160 is a specialised solvent free primer designed for enhancing the adhesion of subsequent membranes, adhesives, toppings and decorative finishes over non-porous substrates.

10. Apply **WPA 460** or **WPA 560** primer to the remainder of the retaining wall above the **Aluminium K Flashing** or **Aluminium Pressure Seal**.

WPA 460 is a two-part, water-based epoxy primer, used to seal concrete and masonry surfaces.

WPA 560 is a two-part, water-based epoxy primer, designed as a water and vapour proof coating under waterproofing membranes.

11. Apply **WPA 200** or **WPA 230UV** waterproofing membrane to the primed **Aluminium K Flashing** or **Aluminium Pressure Seal** and the remainder of the retaining wall.

WPA 200 is a flexible, two-part, rapid drying, cementitious waterproofing membrane system, specifically designed for use under tile, stone and exposed applications.

WPA 230UV is an elastomeric, fibre reinforced, water-based polyurethane membrane system designed for exposed or under tile applications.

12. Install **WPA Drainage Cell** over **Soprema Colphene 3000**, terminating under the **Aluminium K Flashing** or **Aluminium Pressure Seal**.

WPA Drainage Cell is a two-core drainage sheet consisting of a non-woven geotextile filter layer thermally welded to a water impermeable, recycled HDPE (High Density Polyethylene) drainage membrane.

13. Install slotted drainage pipe wrapped in geotextile next to the footing.

14. Cover drainage pipe with 300mm minimum of gravel and cover gravel with additional geotextile filter layer.

15. Backfill with clean material.

16. Ensure that the membrane exposed above ground level is protected by selected surface finishes or capping material.

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WPA 460 or WPA 560

Primer

WPA MS or WPA SPUR

Fillet

Aluminium K Flashing or
Aluminium Pressure Seal

WPA Drainage Cell

Soprema Colphene 3000

Membrane

Soprema Elastocol Stick

Primer

Concrete or Block Wall

Soprema Colphene 3000

Reinforcing Strip

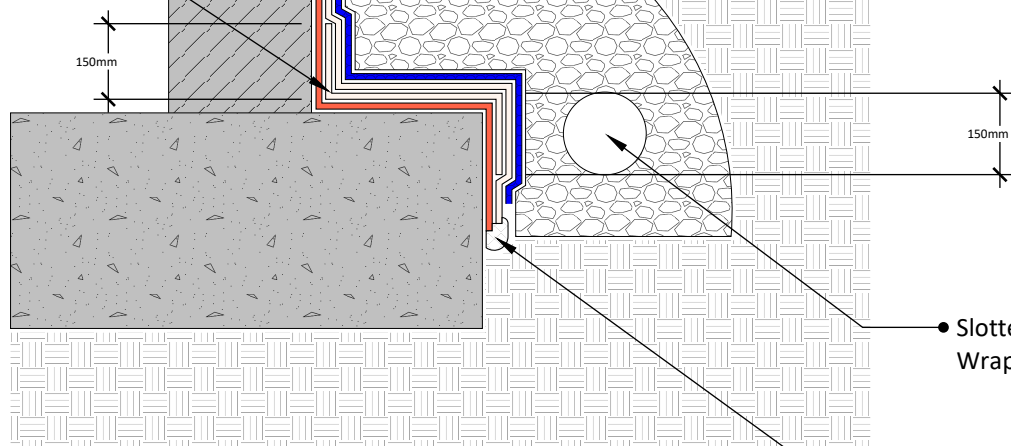
Selected Surface Finish
(eg. Render)

WPA 230UV or WPA 200
Membrane

WPA 160 Primer

Clean Backfill Material

Clean Graded Gravel
(min. 300mm cover)



1 Cross Section
NTS

Slotted Drainage Pipe
Wrapped in Geotextile

Soprema Alsan Flashing Quadro with
Soprema Alsan Fleece 165 B
or Soprema Sopramastic

WPA Drainage Cell

Soprema Colphene 3000

Membrane

Soprema Elastocol Stick

Primer

Soprema Colphene 3000

Reinforcing Strip

Aftek Penapatch Structural HB80

(min. 50mm cover)

Gunnable Waterstop

150mm

150mm

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Soprema Alsan Flashing Quadro
with Soprema Alsan Fleece 165 B

WPA MS or WPA SPUR

Fillet (Bond Breaker)

Clean Backfill
Material

Soprema Colphene 3000
Reinforcing Strip

2 Plan View
NTS

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