

# WP421 Waterproofing Concrete Roof Under Ballast

## 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. Waterproofing installation shall be in accordance with the applicable provisions of the National Construction Code.
2. Install **TPA Screed** to achieve appropriate falls to waste. Where a bonded screed is required, apply a bond coat using **TPA 401M** or **TPA Lite**. If an engineered, rapid screed is needed, install **TPA Rapid Screed**, with a bond coat of **TPA Rapid** for bonded screeds.

**TPA Screed** is a pre-blended screed mixture for the installation of cementitious screeds and tile beds, suitable for internal and external floor applications.

**TPA Rapid Screed** is a pre-blended, rapid set, engineered screed mixture for the installation of cementitious screeds and tile beds, suitable for internal and external floor applications.

**TPA 401M** is a white, flexible, powdered adhesive for wall and floor applications.

**TPA Lite** is a premium grade, white, fibre reinforced, flexible cement based tile adhesive, based on a light weight formulation.

**TPA Rapid** is a high-quality, cost-effective, rapid setting, polymer-modified, grey cement-based tile adhesive.
3. Install an appropriate fillet (bond breaker) to all transitions using **WPA FC**.

**WPA FC** is a high performance, fast cure, one component polyurethane sealant.
4. Install a puddle flange to all waste pipes ensuring that puddle flanges are recessed into the substrate.
5. Apply **WPA SB** primer to non-porous surfaces such as puddle flange and PVC pipes using the 2 cloth method. (The 2 cloth method is carried out as follows: dampen a clean cloth with an appropriate amount of **WPA SB** primer, wipe evenly over the non-porous substrate utilizing a rubbing action. With a clean dry cloth, immediately remove all primer residues by implementing a buffing action).

**WPA SB** is a fast drying, solvent based primer, with exceptional penetrating properties. WPA SB primer is designed to assist in improving adhesion on porous and non-porous substrates.
6. Apply **WPA 460** or **WPA 560** primer to the substrate being waterproofed.

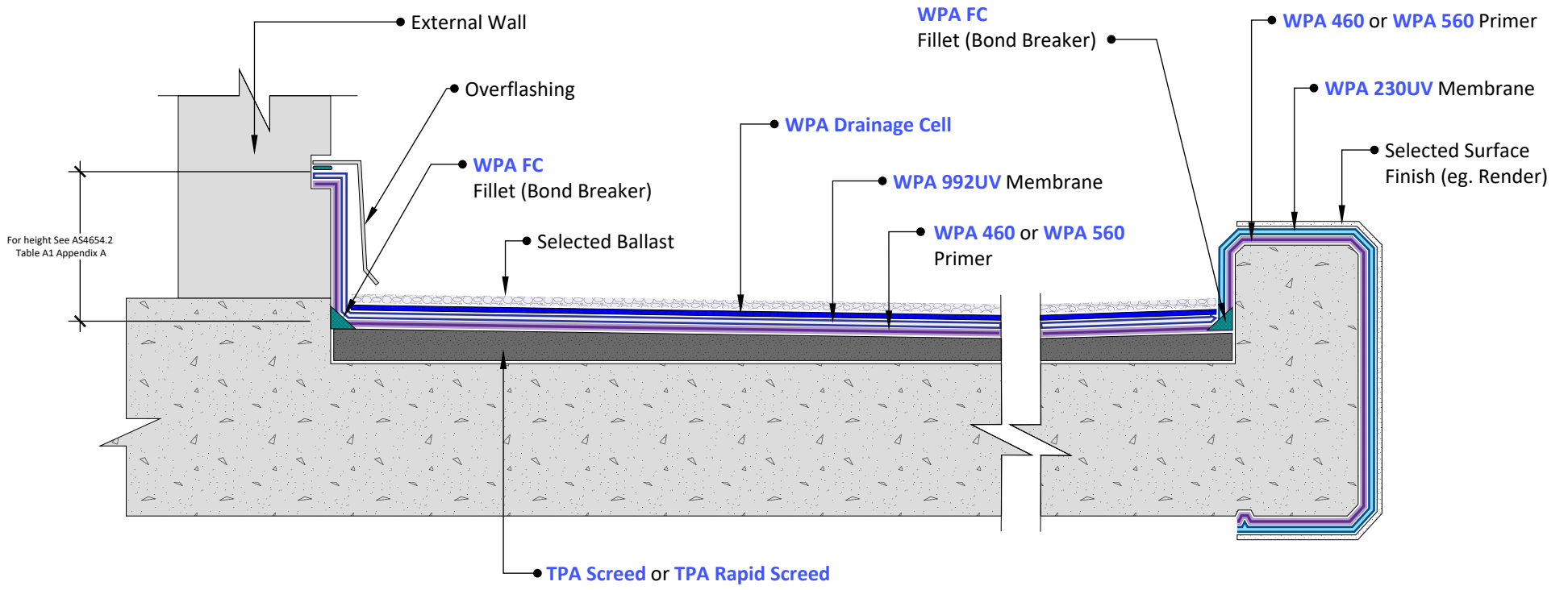
**WPA 460** is a two-part, water-based epoxy primer, used to seal concrete and masonry surfaces.

**WPA 560** is a two-part, water-based epoxy primer, designed as a water and vapour proof coating under waterproofing membranes.
7. Apply **WPA 992UV** membrane in a minimum of two coats to achieve the required dry film thickness. Ensure that the previous coat has completely dried before applying the subsequent coat(s). NOTE: All penetrations must be waterproofed.  
NOTE: Surface finishes such as render, tiles and paint are highly unlikely to bond to **WPA 992UV**. If bonding of surface finishes to the waterproofing membrane is required, this area should be waterproofed with **WPA 230UV** (overlapped under **WPA 992UV**).

**WPA 992UV** is a thixotropic, one part, liquid applied, moisture cured polyurethane waterproofing membrane, suitable for waterproofing most applications.

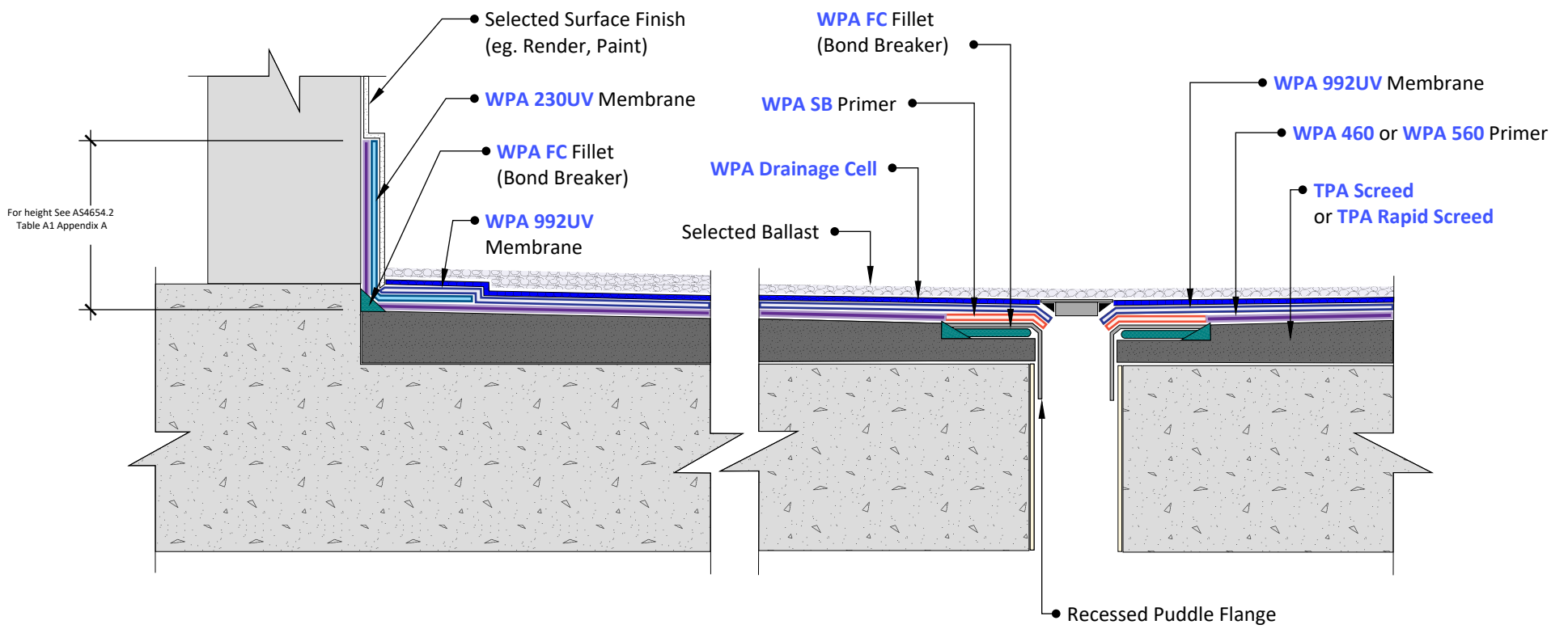
**WPA 230UV** is an elastomeric, fibre reinforced, water-based polyurethane membrane system designed for exposed or under tile applications.
8. Install **WPA Drainage Cell** over waterproof membrane to separate from selected ballast.

**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.
9. Install an appropriate ballast system over **WPA Drainage Cell**.
10. Install over-flashing to cover membrane termination along walls. Leave a minimum 10mm gap from finished floor level.
11. Completely encapsulate parapet walls with primer and membrane. OPTIONAL: Cover membrane on parapet walls with metal capping, ensuring that capping is fixed on vertical surfaces only.



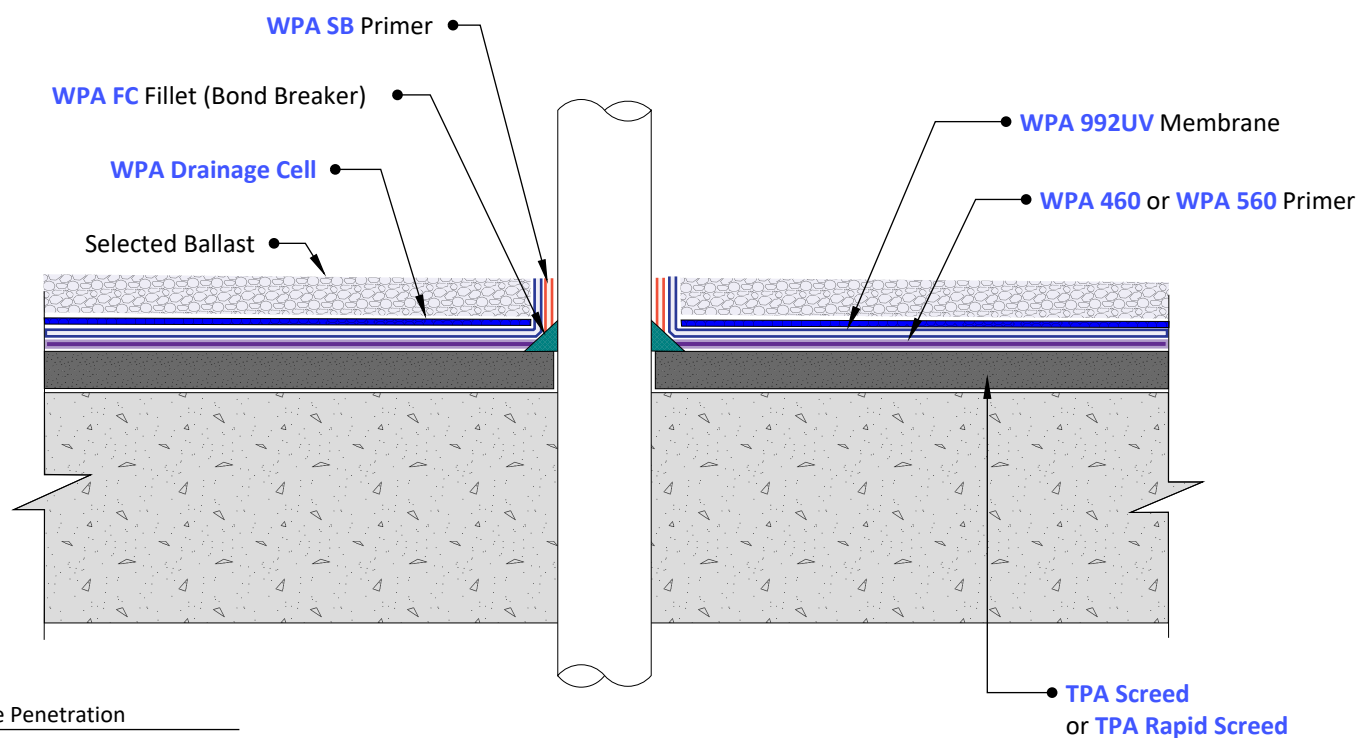
1 Floor/Wall Junction  
Scale: NTS

2 Hob  
Scale: NTS



3 Floor/Wall Junction  
Scale: NTS

4 Waterproofing at Waste  
Scale: NTS



5 Pipe Penetration  
Scale: NTS

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**Waterproofing Concrete Roof  
- Exposed (Maintenance Trafficable)**

DRAWING NUMBER

**WP421**

SCALE: NTS

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