

## MasterLife WP 754 - Application Guidelines

### Introduction

This Method Statement describes the application and installation procedure of the MasterLife WP 754 system. The installation should only be carried out by operatives authorised by Master Builders Solutions using the correct application procedures and who can demonstrate a repeatable high standard to the satisfaction of the site supervisors. Master Builders Solutions has the authority to vary the method statement to suit the contract drawings and actual site conditions encountered.

### System Brief

MasterLife WP 754 is a pre applied sheet membrane waterproofing system consisting of a highly flexible polyolefin membrane and a designed non-woven fleece. This unique system provides a durable mechanical bond, which is created when the fleece is adhered to fresh concrete. MasterLife WP 754 is cold applied and pre-applied, as it is installed without heat or open flames and before the steel reinforcement is placed and the concrete is poured.

### Fields of Application

MasterLife WP 754 is suitable for:

- Below ground concrete slabs.
- Below ground walls with both single (blindsided forming) and double-faced formwork (open cut).
- For prefabricated construction.
- Residential and industrial buildings such as housing, commercial, leisure facilities, manufacturing plants and warehouses.
- Engineered structures such as retaining walls, tunnel galleries, potable water tanks, wastewater storage treatment structures and tanks.

### Features & Benefits

MasterLife WP 754 offers the following benefits:

- No need for protection screed.
- Provides time and labour saving.
- Fast installation; layout, jointing and detailing.
- Weather resistant with temporary UV-stability during installation.
- No lateral water migration in the event of damage.
- Resistant to aggressive mediums in soil.
- Crack bridging ability.
- Overlapping areas are self-adhesive. No need for any extra tape to overlap.
- High elasticity at low temperatures.
- It is resistant to 5 bar water pressure.
- High mechanical impact resistance

## MasterLife WP 754 - Application Guidelines

**The MasterLife WP 754 system consists of the following components:**

### MasterLife WP 754 Membrane

**Material:**

Flexible Polyolefin (FPO)

**Coverage:**

Application requirements can vary according to the total consumption of the project.

**Self-adhesive strip:**

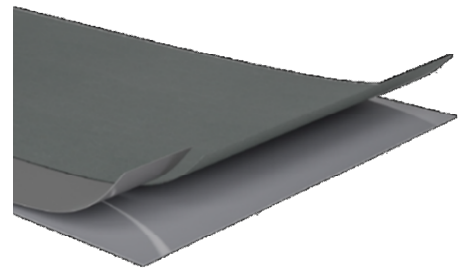
Butyl rubber, highly elastic, resistant to ageing with release liner

**Packaging:**

Supplied as 1.6mm thick, width of 1.0m and length of 20m.

**Field of application:**

Main component of a fully bonded Type A system



### MasterLife WP 754 JT

**Material:**

Butyl rubber coated tape with a release liner and overlaps for ease of use.

**Coverage:**

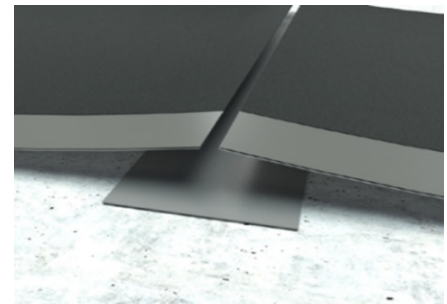
Application requirements can vary according to the total consumption of the project.

**Packaging:**

Supplied at 0.9mm thick, width of 200mm and length of 20m

**Fields of Application:**

MasterLife WP 754 JT is self-adhesive tape which is used to join the 754 membrane at the crosswise section. It can also be used as a repair tape externally for tie bar holes etc.



### MasterLife WP 754 RT

**Material:**

Flexible Polyolefin (FPO) with a Butyl rubber coated tape and non-woven fleece with a release liner with overlaps for ease of use.

**Coverage:**

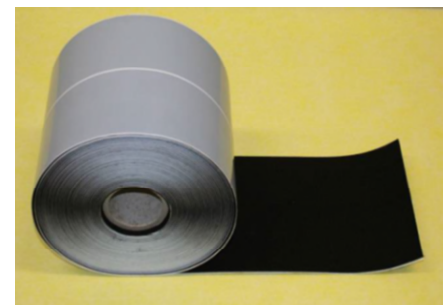
Application requirements can vary according to the total consumption of the project.

**Packaging:**

Supplied at 2.4mm thick, width of 200mm and length of 20m

**Fields of Application:**

MasterLife WP 754 RT is a self-adhesive tape which is used at overlapping and damaged areas. It can also be used to repair internally where a bond with non-woven fleece is needed. Uses include pile cap details and service penetrations.



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### MasterLife WP 754 PC

**Material:**

Double sided, butyl rubber coated tape with long term flexibility. MasterLife WP 754 PC has a release liner for easy removal.

**Coverage:**

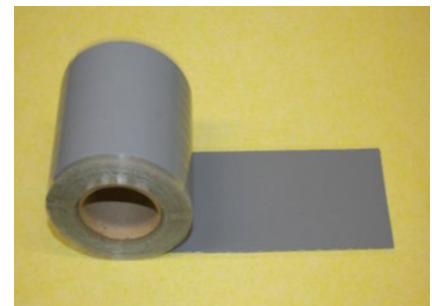
Application requirements can vary according to the total consumption of the project.

**Packaging:**

Supplied at 0.8mm thick, width of 100mm and length of 100m

**Fields of Application:**

MasterLife WP 754 PC is used in waterproofing applications at critical details and damaged areas. It is also used on edges, end points, pile heads and at overlapping areas of MasterLife WP 754.



### MasterLife WP 754 DT

**Material:**

Butyl rubber coated tape, with a release liner with overlaps for ease of use.

**Coverage:**

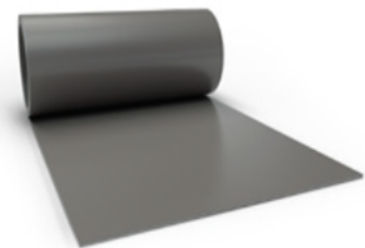
Application requirements can vary according to the total consumption of the project.

**Packaging:**

Supplied at 0.9mm thick, width of 500mm and length of 10m

**Fields of Application:**

MasterLife WP 754 DT is self-adhesive tape which is used with MasterLife WP 754 pre-applied waterproofing applications at toe details and damaged areas.



### MasterLife WP 754 IC & OC

**Material:**

Special self-adhesive inside or outside corner, on the sides and on top with additional butyl stripes.

**Coverage:**

Application requirements can vary according to the total consumption of the project.

**Packaging:**

30cm x 30cm x 20cm boxes containing 25 units (1.3 mm thick, 100mm height, side length 150mm)

**Fields of Application:**

An accessory which is used for MasterLife WP 754 pre-applied waterproofing applications on a horizontal direction at critical points.



## MasterLife WP 754 - Application Guidelines

### Substrate Preparation

It is essential for all substrate surfaces to be solid and sound to eliminate membrane movement during the construction works and concrete pour.

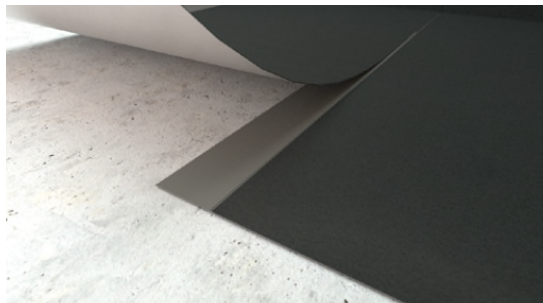
- Must be regular and smooth with minimal gaps and voids.
- Free from oil and grease, dust and any loose particles.
- Large voids to be filled before application.
- A damp, moist environment is acceptable but ponding water must be avoided.
- Substrate temp above 5 degrees Celsius

Suitable substrates:

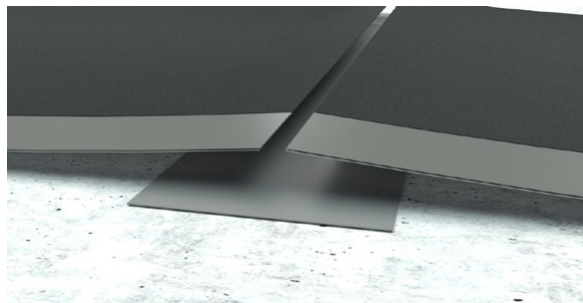
- Compact blinding, piles
- Formwork
- Ply
- Rigid thermal insulation
- Compact soils with geotextile

### Application Procedure

The MasterLife WP 754 Fully Bonded Sheet Membrane must always be placed completely to the outside perimeter of the building. At each lateral edge of the membrane, a self-adhesive overlap edge is provided. The edges must reach together, however a deviation of up to 5mm is permissible. Overlaps in the membrane sheet should be avoided.



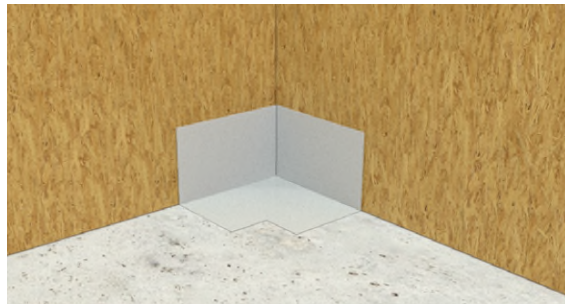
Any butt or running joints are to be made using the 200mm MasterLife WP 754 JT creating a seam in the middle of the sealing strip. When laying the membrane please ensure that seams are staggered. Seam alongside seam installation should be avoided. 200mm wide MasterLife WP 754 JT tape must be used as a sealing aid on the longitudinal edges with an overlap of 100mm on the underside for all joints along the rolled-out membrane. Simply release the protective liner when affixing the MasterLife WP 754 JT tape to the membrane as shown below.



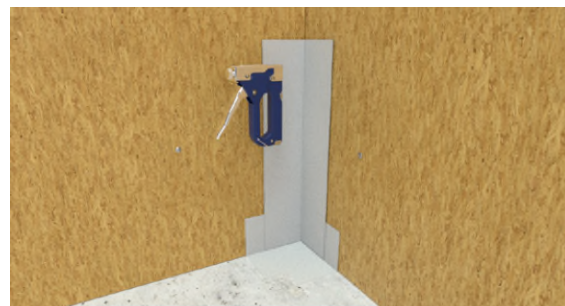
## MasterLife WP 754 - Application Guidelines

### Corner Detailing: For corner detailing there are two recommended methods.

**Method 1:** Place the formed corner pieces appropriately at the corners. The self-adhesive edge must be to the outside i.e. facing towards the area to be concreted.

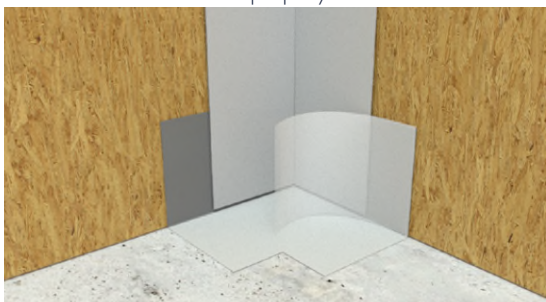


Fix the self-adhesive tape vertically in the corners. Ensure that the self-adhesive side is always facing outwards (to the side for concreting). Effective tacking of the vertical tape is achieved by using a single staple at the top of each of the two corner sides. Do not over tack as this could lead to increased penetration by moisture. If more tacking is required, leave a 50cm distance between staples. If the tape is overlapped, use a 10cm overlap and use a roller to press all overlaps firmly together. Generally, use as few tacks/staples as is necessary.



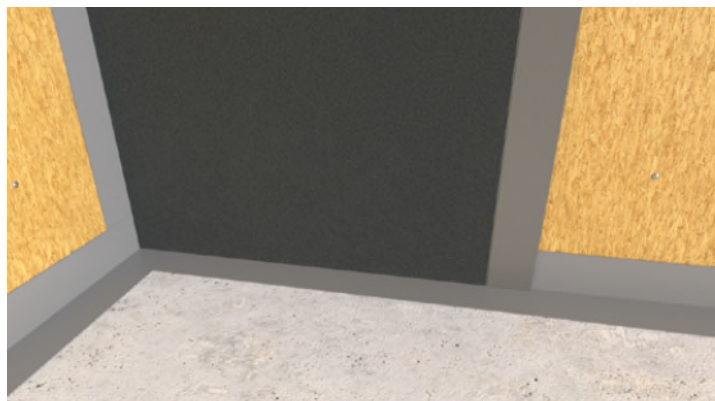
Loosen the protective liner from the self-adhesive corner piece and then affix the vertical part. It is best to tailor the parts to each other while placing them prior to adhering them. This will make it easier to align the parts during the adhering process. **CAUTION:** The butyl parts of the self-adhesive tapes bond exceptionally well and quickly to each other, as well as the membrane. Once placed together, separation is virtually impossible so please take care during the affixing once the protective foil is removed.

Now place the horizontal sealing tapes (as shown) **CAUTION:** Make a visual inspection to ensure that there are no wrinkles or folds and that installation is properly carried out.



## MasterLife WP 754 - Application Guidelines

It is important to ensure that the FPO side is always faced towards any source of water ingress and that the black fleece coating is faced towards the inner side where concrete will be poured. Commence the vertical installation from a corner. Longitudinal joints are to be overlapped using the manufactured butyl strips or adhered in the corners with MasterLife WP JT Waterproofing Tape. MasterLife WP JT should extend outside the line of any overlapping on staples, tacks, clamping rails or nail strips on the concreting formwork. The top edge of the vertical membrane must extend at least 200mm above the floor plate and be secured without causing any other damage. The membrane must only be installed vertically. It must also be installed and fixed to a height of at least 200mm above the top of any formwork.



**Method 2:** The MasterLife WP 754 membrane can be folded at the wall floor junction and it is recommended that a fillet is added to this area (MasterLife WP 590, lean mix etc). The corner element can be fully bonded using the MasterLife WP JT waterproofing tape.





## MasterLife WP 754 - Application Guidelines

### Pile Cap Detail

Products required: MasterLife WP 754 PC, MasterLife WP 754 membrane, MasterLife WP 754 RT and MasterLife WP 588. Pile cap preparation requires the pile cap to be stable and free of debris/dirt. The pile cap needs to be cut down to at least 100mm above the substrate and the rebar derusted. The pile cap is then treated with MasterLife WP 588. Once dry MasterLife WP 754 PC double sided butyl tape is wrapped around the diameter of the pile cap.



MasterLife WP 754 membrane is cut slightly inside the pile cap dimensions allowing for a 20mm overlap once the membrane is pulled over the pile cap to the base.



MasterLife WP 754 RT is cut and feathered to wrap around the pile cap joining the MasterLife WP 754 membrane to the pile cap and creating a fully bonded area. The excess is cut and folded onto the top of the pile cap.

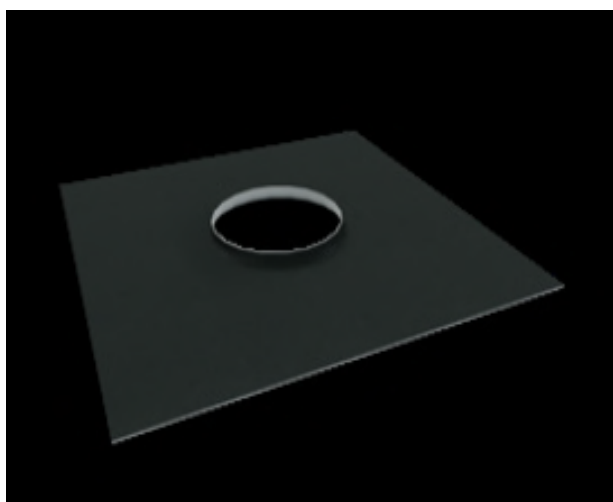
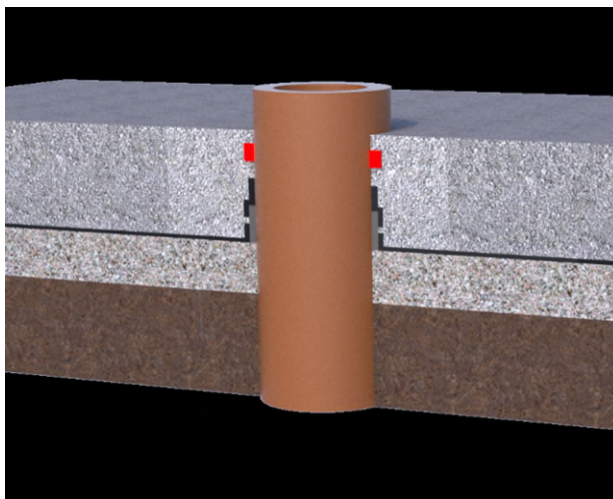


## MasterLife WP 754 - Application Guidelines

### Pipe/service penetrations

Pipe/service penetrations are sealed in a similar fashion to the pile caps. MasterLife WP 754 PC double sided butyl tape is wrapped around the penetration, leaving the protective film over the outside face.

MasterLife WP 754 membrane is placed over the penetration with a hole cut slightly smaller than the diameter of the penetration to allow a 20mm lip at the base. The film is removed from the MasterLife WP 754 PC and MasterLife WP 754 RT tape is wrapped around over the butyl tape, MasterLife WP 754 membrane lip and the actual penetration, creating a watertight detail as shown below.





## MasterLife WP 754 - Application Guidelines

### Tie Bar Penetrations (post installation)

After removing the formwork tie bars, holes and any other penetrations must be sealed with MasterLife WP 754 JT waterproofing tape.

#### Watch points:

- Plug the hole with a MasterLife WP 925 plug.
- Cut off any loose material.
- Clean the surface of the MasterLife WP 754 membrane ready to accept the MasterLife WP 754 JT waterproofing tape
- Ensure min 50mm coverage around the tie bar hole.
- Use a roller to ensure ample adhesion and no air bubbles, a torch can be used.



### External Joint Sealing

All joints are to be sealed with components of the MasterLife WP 754 range, namely MasterLife WP 754 JT waterproofing tape 200mm width or MasterLife WP 754 DT 500mm width to cover an external toe detail.

#### Standard procedure:

- Remove any loose or excess membrane at the toe/construction joint detail.
- Fill any voids.
- Clean the surface of the MasterLife WP 754 membrane to accept the joining tape.
- Minimum 80mm coverage from the tape either side of the joint.
- Use of a roller recommended to expel air pockets.



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## MasterLife WP 754 - Application Guidelines

### Post Inspection

- A visual quality control check of the system with attention to the joint areas.
- No damage to the system.
- Detailing tapes and connections properly bonded.
- Repairs to any damaged areas completed.
- Area clear of debris and water ready to accept concrete.

### Contact Details

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