# **Technical Guide**

### Homelux Waterproof Matting System Waterproof Wall and Floor Crack Suppression Membrane

For use with wall and floor tiles

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## The Importance of Waterproofing

Waterproofing and sealing against water and moisture is perhaps the most crucial element of any wetroom or shower/bathroom installation. With Homelux Waterproof Matting, you can shower with the complete confidence that your installation is absolutely watertight with a 100% guaranteed seal.

### The problem

Most of us have had some experience of the damage that can be caused when tiled bathrooms and wet areas are not sealed properly against intrusive water and moisture.

Unsightly damp patches constantly re-appear on the ceiling in the room below the bathroom, not to mention the unseen damage that leaks can cause to timber frames, building joints and plaster boards etc.

### Why the problem exists

**HOMELUX** 

Tile, grout, adhesive and silicone move very little with temperature change but substrates such as wooden floors do. As the floor expands it will pull the floor tiles with it, expanding at its weakest points. This will eventually cause cracks to appear in the grout joints, and worse still, in the tiles.

This will then lead to water penetrating through these cracks in the tiles, grout joints or through silicone sealants which have moved from their original sealing positions. So regardless of whether you have used waterproof adhesives\*, grouts\* or sealants, you will not necessarily have a watertight seal around your bath or shower tray.

\*Unless you have used a 2 part epoxy adhesive or grout, the statement "waterproof" means the product will not breakdown in water when set but it will not stop water passing through it as a barrier.











## Waterproof & Crack Suppression Matting

Waterproof and crack suppression matting from Homelux is a membrane that can be used under any tile application. The membrane ensures complete watertight protection, preventing the migration of vapour from the tile surface to the substrate. The floor membrane has a decoupling layer which helps to prevent tiles cracking by allowing for movement (as shown below in Image 1\*). Tiles can be installed on the membrane immediately as there is no drying or waiting time. Use with the matting accessories to completly seal the tiled area.

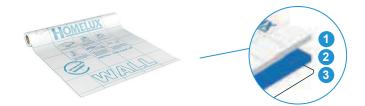
### Why is waterproof and crack suppression matting the solution?

Sealing against water and moisture is critical in order to protect any construction or building against intruding water. Damages from such leaks can create high and escalating repair costs.

## Waterproof matting is your one-stop solution to permanent waterproofing and has the following benefits:

- · Quick and easy to install
- Wet area completely sealed from water and moisture penetration to substrates below
- Floor matting has a decoupling fleece layer that separates the tile from the floor and helps to prevent tiles and grout from cracking
- No waiting or drying time, able to install tiles immediately once the matting is applied
- · Uniform thickness, with no weak points
- 100% waterproof seal with a 10 year guarantee





A division of

Floor matting is made up from 3 layers into 1:

- 1. Polypropylene Acts as a key for the tile adhesive
- 2. Polyethylene Waterproof barrier
- 3. Polyester Decoupling fleece layer

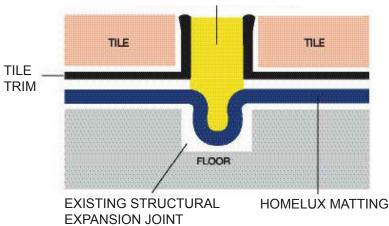
Wall matting is made up from 3 layers into 1: 1. Polypropylene

- Acts as a key for the tile adhesive
- 2. Polyethylene Waterproof barrier
- 3. Polypropylene Acts as a key for the tile adhesive



## **Key Considerations**

• If a structural movement joint is already present in the substrate then simply loop the matting into the joint by approx. 2mm – 5mm and fill loop with silicone or flexible caulking (see diagram below).



SILICONE/FLEXIBLE CAULKING

- The decoupling feature of the matting eliminates the need for movement joints in the matting.
- Movement joints are recommended in large uninterrupted areas of tiles, every 10 linear metres, if under tile heating is installed, every 3.5 linear metres.
- Please consult your tile manufacturer or building professional for advice.
- Ensure 100% adhesive coverage when installing the matting.
- Remove all air pockets from underneath the matting system.
- Homelux matting must be installed with a powder based adhesive, making sure that the adhesive is suitable for your specific application.
- Do not use the matting in areas with mass volumes of standing water e.g. swimming pools.
- If applying to tongue and groove flooring it is good practice to cover the floor first with 6mm plywood to equal out any undulations in the boards and make the tiling easier.
- All wooden substrates should be primed as per the tile adhesive manufacturer's instructions to allow for optimum bonding between the substrate and the matting.
- Fresh concrete must be allowed at least 28 days curing time before the matting is installed. Fast drying concretes are available, however, and may have different recommendations. As always, fully read all instructions before use. Concrete must be completely dry before matting installation.



### **Product Features & Uses**

### **Product Features**

A waterproof matting for setting tile and stone.

- Provides a 100% waterproof barrier between tiles or stone and the floor.
- A unique decoupling layer in the floor matting reduces the risk of cracks and tile movement.
- · Cuts easily with a utility knife.
- The matting is lightweight and easy to work with.
- Ideal for both indoor and outdoor use.
- You can tile immediately on top of the matting, as soon as the matting has been installed on any acceptable substrate.

### **Product uses**

Homelux waterproof matting has been specifically designed to provide a 100% waterproof barrier in conjunction with adhesive, to create a bonded crack prevention system that reduces the damaging shear forces and stresses created between the tiles and the substrates. Matting is mold and fungus resistant, dimensionally stable and waterproof in excess of the standards set out in the ANSI A118. 10 specification. Use Homelux matting, inside and outside corners and joint tape for fast, easy installations.

### **Product testing**

Homelux waterproof matting has been tested in accordance with ANSI A118.10, which specifies key standards for wetroom sealing membranes.

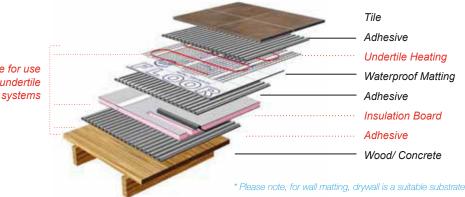
Our matting surpasses all criteria (see page 11), which has meant our product is recognised by IAPMO – International Association of Plumbing and Mechanical Officials. This recognition is only given to products of outstanding quality and competence. Credited Architects and Building Contractors will only specify IAPMO listed products, so they can be sure that the products they are using match the high finishing standards that they set themselves.





### **Areas of Application**

Suitable for use with undertile heating systems



### Areas of use

- Indoor and outdoor applications.
- Can be used with undertile heating systems (as illustrated above).
- Can be used over exterior grade plywood, exterior decks, concrete, adhesive beds, masonry, lightweight concrete, OSB, ceramic tiles, resilient flooring, CDX.
- The adhesive being used must be suitable for the substrate.

### **Surface Preparation**

Surfaces must be structurally sound, clean, dry and free from dirt, grease sealers, or any contaminants that would prevent a good bond. Painted or treated surfaces must be stripped, sanded and all dirt removed.

### **Cement Surfaces**

Concrete must be fully cured and free from moisture. For best bonding results, please refer to the instructions on the manufacturer's packing of the adhesive being used. Smoothed/polished concrete slabs must be roughened to ensure a good bond.

### Wooden Surfaces

Must be structurally sound and built to industry standards. Consult a professional contractor if excessive substrate flexibility is evident. Minimum wood substrate requirements are as follows:

- 406.4mm on center joists = 15.8mm thickness substrate
  - 487.68mm on center joists = 19mm thickness substrate
- 609.6mm on center joists = 22mm 25mm thickness substrate





### **Installation Advice**

- Ensure the substrate being covered is clean and dry before laying the matting.
- Make sure the floor is structurally sound and suitable for the tiles you are going to use (please consult the tile manufacturer for recommendations on substrate thickness requirements).
- Read the instructions carefully of any adhesive that you use for drying times and to confirm its suitability for the substrate you are working with.
- Pre-cut all matting to size before installation.
- Measure the area to be covered carefully before cutting the matting.

Do not start in the middle of the room; always work from the edge of the room. It is extremely important that all air bubbles are removed from underneath the matting. Note; trowel adhesive in straight lines, not scroll to allow the air easy access out.

- Ensure 100% adhesive coverage underneath the matting and accessories.
- Use all matting accessories (e.g. pipe collars, joint tape and corners) to achieve a complete watertight finish.
- Fit wall matting before the floor matting, if this cannot be done, cover the floor matting with a suitable covering to stop accidental damage to the floor matting.
- Homelux matting is ideal for the installation of Ceramic Tiles, Porcelain Tiles, Natural Stone and Pre-cast Terrazzo Tiles.



## **Wall Matting Installation Guide**



#### Step 1

Measure the areas to be covered and cut the matting to size using a utility knife.



#### Step 4

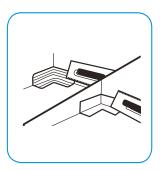
Using the trowel, apply the powder based adhesive\* evenly to each side of the joint. Install Joint Tape (sold separately), overlapping the joint evenly. Smooth out again as on previous step (3).

Note: Once both the wall and floor matting have been installed - seal joins as is in steps 5 and 6.



### Step 2

Apply the powder based adhesive\* to the substrate using a 4mm square notched trowel ensuring a 100% coverage, if the substrate is uneven this will be taken up when tiling.



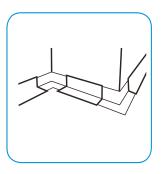
### Step 5

Using the trowel, apply the powder based adhesive\* approx. 75mm wide on the floor and wall where corners (sold separately) will be applied. Position corners in place and secure firmly with the edge of the trowel, removing excess adhesive and eliminating air pockets.



#### Step 3

Lay the pre-cut matting non printed side down. Work the matting firmly into the tile adhesive with the flat edge of the trowel ensuring 100% contact. Remove any excess adhesive and eliminate any air pockets.



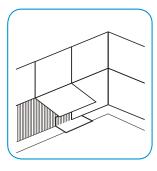
#### Step 6

Apply the powder based adhesive\* to floor and wall between corners where joint tape will be applied, overlapping 50mm onto corners. Fold joint tape in half, crease, and apply between corners overlapping 50mm onto corners. Smooth out again as per step 5.

Please Note: It is imperative that the ready mixed adhesive is NOT used, as this will fail to bond properly to the waterproof matting, causing the guarantee to be invalid. The powder adhesive mix needs to be done as per the instructions on the adhesive packaging. If the mix is too wet, the matting will not adhere properly, causing the guarantee to be invalid.

\* Only use single part powder based adhesive with the waterproof matting system. Always ensure the tile adhesive is suitable for the substrate.

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Step 7 When the matting installation is complete, apply powder based adhesive\* and tile as normal.

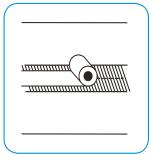


## **Floor Matting Installation Guide**



Step 1

Measure the areas to be covered and cut the matting to size using a utility knife.



### Step 4

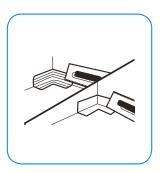
Using the trowel, apply the powder based adhesive\* evenly to each side of the joint. Install Joint Tape (sold separately), overlapping the joint evenly. Smooth out again as on previous step (3).

Note: Once both the wall and floor matting have been installed - seal joins as is in steps 5 and 6.



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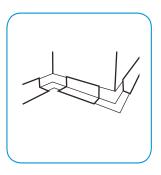
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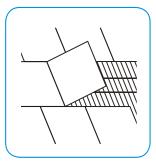


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\* Only use single part powder based adhesive with the waterproof matting system. Always ensure the tile adhesive is suitable for the substrate.



**Step 7** When the matting installation is complete, apply powder based adhesive\* and tile as normal.



## Wall and Floor Technical Data

Material Composition	Wall	Floor
Upper Layer	Polypropylene (PP)	Polypropylene (PP)
Middle Layer	Polyethylene (PE)	Polyethylene (PE)
Bottom Layer	Polypropylene (PP)	Polyester
	Physical Properties	
Resistance to temperature	-22°F/ +194°F -30°C/ +90°C	-22°F/ +194°F -30°C/ +90°C
Total Width	1m	1m
Total Length	5m	5m
Total Thickness	0.7mm	0.85mm
Total Weight	300g/m <sup>2</sup>	365g/m²
Colour	White (Printed)	White (Printed)
Storage	Cool and dry, protect against sunlight	

Stability: 10 years warranty for the guaranteed product qualities

Not to be used in areas with standing water e.g. Swimming pools

### Conforms to ANSI A118.10 – 1999

Exceeds required criteria for fungus resistance, seam strength, break strength, dimensional stability, waterproofness and shear strength to ceramic tiles and cement adhesive.

Manufactured in line with European Organisation for Technical Approvals (EOTA) ETAG 022

Guideline for European Technical Approval of Watertight covering kits for Wetroom floors and or walls.

### Manufactured to DIN EN ISO 9001:2000

European quality management system.

### **Accessories Technical Data:**

Material Composition	Components
Upper Layer	Polypropylene Non Woven
Bottom Layer	Polypropylene Membrane

## Flexi Collar Technical Data:

Material Composition	Components
Upper Layer	Polypropylene Non Woven
Bottom Layer	PVC Coating



## **Matting Accessories Installation Guide**



### **Pipe Collars**

- 1. Apply sufficient powder based adhesive\* around the base of the pipe e.g. radiator pipe, with a 4mm square notched trowel.
- 2. Slide pipe collar over pipe and press down into the adhesive.
- 3. Using the flat side of the trowel firmly smooth out the collar ensuring 100% contact. Remove any excess adhesive and eliminate any air pockets.

Pipe collars are suitable for 15mm pipes.



### **Outside Corners**

1. Apply sufficient powder based adhesive\* to the outside corner with a 4mm square notched trowel.



2. Place the outside corner in position and smooth out air pockets with flat side of trowel.



### **Inside Corners**

1. Apply sufficient powder based adhesive\* to the inside corner with a 4mm square notched trowel.



2. Place the inside corner in position and smooth out air pockets with flat side of trowel.



### Joint Tape

- 1. Fill the open joints with powder based adhesive\* approximately 30mm each side of this joint wide with a 4mm square notched trowel.
- 2. Center the tape over the joint.
- 3. Using the flat side of the trowel firmly smooth out the tape ensuring 100% contact. Remove any excess adhesive and eliminate any air pockets.
- \* Only use powder based adhesive with the matting system. Always ensure the tile adhesive is suitable for the substrate.



## Waterproof Matting & Accessories

### Use to create the ultimate waterproofing solution

The wall and floor waterproof matting should be installed with the Homelux range of accessories to completely waterproof a bathroom or wet area.

See below for a guide on where to use the accessories.







## **The Product Range – Ordering Information**

### Waterproof Matting

Product Code	Description/Finish	Barcode	Size
HPXF5UK	Floor Matting	5060135371753	5m x 1m
HPXW5UK	Wall Matting	5060135371371	5m x 1m





Wall and floor waterproof matting is available in: 5m x 1m rolls.

### **Corners & Joints**

Product Code	Description/Finish	Barcode
HFLEXWPMEC	External Corners x 1	5060199171818
HFLEXWPMIC	Internal Corners x 1	5060199171795
HFLEXWPMJT	Joint Tape	5060199171771







Use pre-cut inside and outside corners to easily seal around corners to provide full coverage over any gaps.

Joint tape covers any gaps between the floor or wall when the matting has been cut.

### **Pipe Collars**



Product Code	Description/Finish	Barcode
HFLEXWPMPC	Pipe Collars x 1	5060199171832

Use pipe collars as a quick and easy method to seal around water pipes and radiator pipes.



### **Frequently Asked Questions**

### What's the problem?

- · Water penetrates or seeps into the wall / floor joints
- · Leaks in bathroom which have built up over time
- Bathrooms not sealed properly
- Damp patches in rooms below from leaks!

### Why does the problem exist?

- Grouts & adhesives are only water resistant...not waterproof!
- Over time grout joints will allow water to penetrate below the tiles
- Water and moisture can still migrate to the substrates below
- Mastics and silicones can crack and seals can be broken
- Subsidence can cause seals to break and tiles to move and crack

### Why is matting the solution?

Waterproofing against water and moisture is critical to protect any construction or building and helps to prevent the following:

- Cracks in walls
- · Cracks in the ceramic layer
- Water penetration to other areas or living spaces
- Expensive repairs

### Can you use a ready mixed matting adhesive to install the membrane?

No, ready mixed adhesives need air to dry, as the matting is waterproof this cannot be achieved. A single part flexible powder adhesive must be used.

## Does the adhesive use to install the tiles over the matting need to be the same as the adhesive used to install the matting itself?

Yes, for example if you need to use a polymer modified powder based adhesive, i.e. when you are tiling onto wood, then you should use the same polymer modified powder based adhesive on top of the matting. Although the matting compensates for shear forces and lateral movement it doesn't compensate for vertical movement and flexing so a polymer modified powder based adhesive is recommended above and below the matting.

## What thickness of adhesive is needed under the matting?

A 4mm square notched trowel is suitable to be used to install the matting on either the floor or wall but the size of the trowel required to install the tile on top of matting is dictated by the size and location of the tiles themselves.

### The corners and joint tape cannot be used with an off 90 degree corner, what is the solution?

If the corner is not square or curved then using a suitable silicone sealant to seal the area is perfectly fine at the joints and edges of the matting.

### Can the floor matting be used on the wall?

No, the floor matting has a decoupling layer which if installed onto the wall may destruct and result in the tile delaminating from the surface.

### Note: 4mm trowels are normally described as mosaic trowels.

Note: To achieve optimum amount of adhesive coverage, adhesive trowel should be used at a 45° angle.

### Technical Helpline: 0800 707 6361







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