

ESD-tile Installation Instructions & Method Statement

Recommended method of installation: *These notes have been prepared as guide only, the information is supplied in good faith but without guarantee as site conditions vary and are beyond our control.*

POINTS TO CONSIDER BEFORE YOU START INSTALLATION:

- **LOOSE LAY OR GLUE?** the tiles E500/7 and E500/10 can be installed over any hard surface and in **most** situations will not require gluing. We recommend that the tiles E500/6, in most cases, is installed using either a permanent adhesive such as Uzin MK92S or a Pressure Sensitive Adhesive such as Uzin DK700 or Styccobond F41.
- **PLEASE NOTE** we do recommend gluing all design of tiles in the following situations:
 - **DIRECT SUNLIGHT** (Shop fronts, south facing loading bay, sky lights etc.) It is advisable to glue the tiles in areas subject to direct sunlight such as glass fronted entrance foyers, shop fronts, south facing loading bay doors etc. It is possible that the tiles in direct sunlight will get very hot and expand at a faster and higher rate than the remainder of the floor.
 - **HEAVY TRUCKS AND/OR TIGHT TURNING CIRCLES** - Certain fork lift and pallet truck designs can cause a problem, heavy trucks with small wheels, especially electric trucks where the battery is located over the main drive wheel. If you use this type of vehicle we strongly advise you to test the tiles with the trucks before making a decision on which thickness to use (7 or 10mm ecotile and/or consider gluing the tiles.
 - **EXTERNAL HEAT SOURCES / CATALYTIC CONVERTERS:** Ovens, furnaces and catalytic converters can make the floor extremely hot and may cause the tiles to expand. To avoid this problem glue the tiles in the area in front of the oven or where the catalytic converter will sit when the car is parked.
- **STAINING / DISCOLOURING**
 - **STAINING FROM RUBBER TYRES:** It is possible that certain rubber tyres and wheels may stain the tile (and many other types of flooring). This is a result of a chemical reaction that occurs between the anti-oxidant that is used in some rubbers and the plasticizer used in vinyl. The stain/reaction is brown in colour so is less visible in certain colours of tile (dark grey, terracotta and black). We recommends that if your application is susceptible to staining from tyres, hair dyes and other harsh chemicals, you consider the application of our anti-colour /anti-stain 2 part solvent free waterborne polyurethane sealer. Please contact us for further information.
 - **UV STABILITY** – the tile is not recommended for external use and the colours are not UV stable.
- **BATCH CONTROL:** We are unable to guarantee 100% colour consistency between individual production batches. Each individual order will be supplied from a single batch but in the event that you need additional tiles or wish to extend the area we cannot guarantee subsequent orders will be supplied from the same batch.
- **SURFACE FINISH / PATINA / WITNESS MARKS** – the tile is designed to provide exceptional durability + simple installation. This is achieved by the unique interlocking design and method of production. The method of manufacture may result in a witness mark being visible in the tile at the central injection moulding point and along the flow lines from the centre and around the external edge of the tile, the mark cannot be avoided. Please check the tiles, if the marking is unacceptable do not continue with installation as we will not accept responsibility to replace or refund the cost of any goods after 10m² or more have been installed if the markings are subsequently deemed unacceptable.

TOOLS & EQUIPMENT: All you need is a non-marking rubber mallet or engineering hammer, chalk line or other method of keeping the tiles square and a way to cut the tiles. the tiles can be cut using several methods, a lot will depend on personal preference, experience and the tools you have on hand but we recommend the following:

- Magnum shear / guillotine – Available to hire from ecotile
- Stanley / utility knife with a concave blade – Always use a straight edge and wear cut proof gloves.
- Electric jig saw with a medium or rough wood blade
- Table saw or Band saw with a medium or rough wood blade



Guillotine (Available to rent)



Electric Jigsaw



Stanley knife with concave blade

Stage 1 - TEMPERATURE - ALLOW THE TILES TO ACCLIMATISE

Installation should not take place at temperatures below 15°C. Do not try and install the tiles straight after delivery, the tiles must be allowed to acclimatise to the ambient room temperature prior to starting installation, we recommend you allow 24 hours but this will be dependent on temperature, the warmer it is the quicker the tiles will acclimatise, if time is short we recommend you breakdown the pallet of tiles to help them acclimatise and settle quicker (see pic 1.)

PLEASE NOTE: If installation has to take place at a temperature below 15°C, firstly allow the tiles to acclimatise to the ambient temperature of the room and secondly, leave a larger expansion gap between the tiles and any fixed point **and / or** incorporate an expansion gap in the floor every 8 to 10 meters. We are unable to warranty installations that have taken place at temperatures below 15°C.

Stage 2 - PREPARATION: Sweep or vacuum the floor to remove any loose impediments. Remove any high points in the floor. Fill any holes with a suitable floor repair compound.

Stage 3 - SETTING OUT: Setting out / the starting point is different for the open joint and hidden joint design; please refer to the specific installation instructions for each type of tile design below.

VERY IMPORTANT: It is essential for both designs that the tiles are kept square to each other at all times. We strongly recommend that you use a chalk line; laser line or carpenter's square to set out the site and to ensure that the tiles are kept at right angles to each other. (see pic. 3)

Stage 4 - INSTALLATION METHOD: Once you have identified your starting point and created your straight lines it's time to start fitting the tiles. Lay the tiles out on the floor (see Pic 4); this will allow them to settle. Connect the tiles together by lining up the corner of the tile and ensure the joints are in line. Starting from the corner (see Pic 5) use your rubber mallet to gently tap the joints together. **HINT:** If the joints don't fit together easily, chances are you are doing something wrong. The first sign of trouble will always be if the tiles do not connect together with a simple tap of the hammer, this will indicate that the tiles are not lined up correctly or are going out of square.

ESD INSTALLATIONS ONLY: ESD-tile contains stainless steel fibres that may be visible on the surface of the tile. This is unavoidable and a fundamental part of the manufacturing process that ensures optimum ESD performance. Please check the tiles, if the marking is unacceptable do not continue with installation as we will not accept responsibility to replace or refund the cost of any goods after 10m² or more have been installed.

To achieve a fully ESD flooring the tiles need to be grounded. This is achieved by laying a grid of black conductive tape under the dove tail joints of two tiles so that it is in contact with every tile in one direction and 5m centres in the opposite direction (see Picture). One grounding point is needed for every 60 to 80m² of ecotile ESD and / or one grounding point for each separate section / room of ecotile ESD installed. Place the grounding point in the corners of the room or along the wall to avoid creating a trip hazard.

IMPORTANT: We highly recommend that once your ESD floor has been installed that the tiles are cleaned using our Green Care Heavy Duty Degreaser / Stripper to ensure optimum ESD performance is achieved.



Pic 1. Break down the pallets and allow tiles to acclimatise



Pic 2. Sweep the floor, remove any highpoints and patch repair or level any cracks or low points.



Pic 3. Make sure you keep the tiles square using either a carpenter's square, chalk line or laser



Pic 4. Split the pallet and spread the tiles across the floor prior to starting installation.

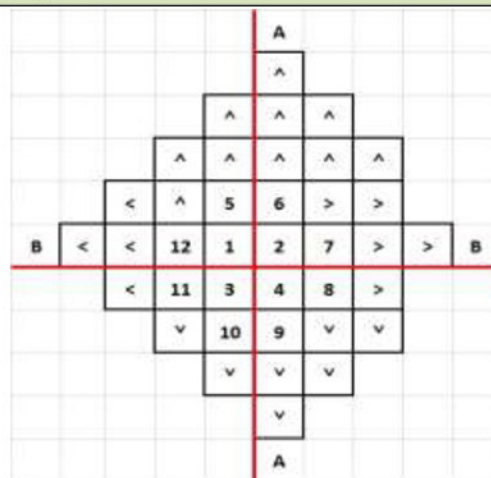


Pic 5. Don't force the tiles, offer up the corner of the tile and gently hammer the joints together.

WHERE TO START: The starting point for the open joint, the E500/7 & E500/10 tiles, should always be as close to the centre of the room as possible. The hidden joint tile, E500/6, should start from one corner of the room.

A. INSTRUCTIONS FOR TILES E500/5 , E500/7 & E500/10 OPEN JOINT TILES ONLY

1. Start from as close to the centre of the room as possible.
2. Snap a chalk line or use a laser to create lines A-A and B-B. Make sure these lines are at right angles. (Pic. 6).
3. Using the rubber mallet, tap tiles together, starting at the corner of the tile & working your way outwards towards the edge of the tile.
4. Work out in a circular pattern filling in the corners
5. Once all full tiles have been installed allow the floor to settle before measuring and fitting the finishing cuts.
6. Ensure that you allow at least a 5mm expansion gap between the tiles and any fixed point



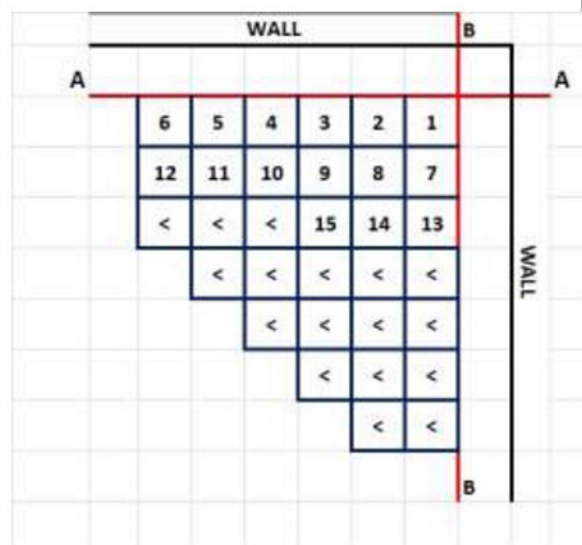
Pic. 6

B. INSTRUCTIONS FOR TILES E500/6 HIDDEN JOINT TILES ONLY

We recommend that ecotile E500/6, in most cases, is installed using either a permanent adhesive such as Uzin MK92S or a Pressure Sensitive Adhesive such as Uzin DK700 or Styccobond F41.

1. Carefully measure 20cms out at each end of wall and snap a chalk line or use a laser to create lines A-A and B-B. Make sure these lines are at 90 degrees to each other. (Pic. 7).
2. Lay tiles with the hidden/female joint to the walls (identified here by the red lines and the exposed joint/male joint on the left / bottom of the tile. Very important - lay the first few rows perfectly straight, any mistake now will impact on the entire installation.
3. Lay the tiles from right to left always placing the hidden/female edge on top of the exposed/male edge. Line up the tabs at the corner to help align tiles. Install one row at a time, completing each row before beginning the next.
4. Cut in perimeter tiles allowing at least a 5mm expansion gap between the tiles and any fixed point

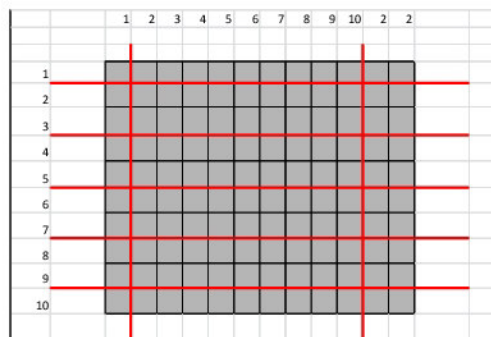
VERY IMPORTANT: We strongly recommend you use a chalk line; laser line or carpenters square to ensure that the tiles are kept at right angles to each other throughout the installation.



Pic 7.

C. INSTRUCTIONS FOR E500/7/ESD & E500/5/ESD ONLY

1. Follow stage 1 & 2 as detailed in section A
2. Lay the grounding tape (shown as the RED LINES line in Pic 8). The tape should be laid to run under the centre of every tile in one direction (horizontal lines in the pictures and at right angles every third tile as demonstrated by the vertical green lines
3. Using the rubber mallet, tap tiles together, starting at the corner of the tile & working your way outwards towards the edge of the tile.
4. Work out in a circular pattern filling in the corners
5. Once all full tiles have been installed allow the floor to settle before measuring and fitting the finishing cuts.
6. Ensure that you allow at least a 5mm expansion gap between the tiles and any fixed point
7. Fit your ground points (minimum of one every 60 to 80m²) in the corners or along the extremities of the esd floor. Ensure that the grounding tape is connected to the studded grounding tile and connect you floor to your grounding point.



Pic. 8

To Calculate how much grounding tape you require Notes:
For an area of 5 metres x 7 metres = 35m² multiply the total area by 2.5 to work out how much conductive tubing is requires i.e. in this example 87.5 linear metres of tubing needed

Important: If the existing floor / substrate has already been grounded (i.e. you are laying over an existing conductive floor) it may be necessary to lay an insulative barrier under the tiles. If in doubt please contact our technical team for further advice.

CUTTING, FINISHING & MAINTAINING YOUR ECOTILE FLOOR:

For the perfect finish:

- ✓ **Leave a minimum of a 5mm gap between the tiles and any fixed point (walls and machinery)**
- ✓ **Cover the 5 mm expansion gap between the tiles and the walls with skirting profiles.**
- ✓ **Undercut wood doorjambes and slip the tiles underneath.**
- ✓ **With metal doorjambes – cut the flooring material to within 5mm & then caulk around the jamb.**
- ✓ **Use ecotile ramp and corner sections (E500/7 & 10) or dim strips for E500/6.**
- ✓ **The tiles may require gluing if they will be in direct sunlight.**
- ✓ **To keep your floor looking good give it a sweep on a regular basis and use a rotary scrubber dryer for routine maintenance.**



- ✓ **Leave a minimum of a 5mm gap between the tiles and any fixed point (walls and machinery)**

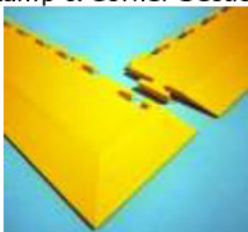
- ✓ **The tiles may require gluing if they will be in direct sunlight.**

- ✓ **To keep your floor looking good give it a sweep on a regular basis and use a rotary scrubber dryer for routine maintenance.**

Skirting Profiles



Ramp & Corner Section



Cleaning Materials



ESD GROUNDING KIT



Cleaning Guidelines

- Regular & light cleaning is better than infrequent and heavy cleaning.
- Use an entrance mat to remove as much dirt and moisture as possible.
- Use a **neutral PH floor** cleaning detergent and don't use an excessive concentration of cleaning detergent.
- Use the correct cleaning equipment, either a two component bucket and mop system or rotary scrubber dryer, it may cost a bit more up front but will save you a fortune in time and effort in the long run.
- Don't use excessive amounts of water, this will make your job harder, not easier, **damp mopping** is the best solution.

Care & Maintenance

- Fit protective feet to table and chair legs and avoid dragging items with sharp or angular corners over the floor to prevent scratching.
- **ESDtile** has an impervious surface that can be kept clean using traditional cleaning methods. However an application of a metalised polish can offer extra protection if required. The level and intensity of traffic and soiling will determine the level of cleaning required and if and when a polish will have to be applied.
- Standard commercial polishes **must not be applied to the ESD and anti-static** esdtile range as they will inhibit the conductive properties of the flooring. Please refer to our **approved maintenance products** for information on the approved range of maintenance products.

For further information or assistance please contact our technical department