

Specification Sheet No	PSA	Description	POLYFLEX PLUS PU	Date	AUG
	08		2.00mm		2023

## ARCHITECTURAL SPECIFICATION / BOQ

### SPECIFICATION:

Supply and install Polyflex Plus PU PVC tile flooring in a 2.0mm thickness in 300mm x 300mm tiles, homogeneous and monolayer in construction, to ensure that its hard-wearing properties and decoration last throughout the whole product thickness, material shall conform fully with the requirements of EN 649/EN ISO 10581, in respect of flame spread, the flooring shall have been fully tested to EN 13501-1 and certified as having Class Bfl-S1. The flooring shall have been fully tested to ASTM E648 and certified as having passed with a Class 1 rating, making it suitable for use in institutional, commercial and public buildings, with regard to EN 13893 for slip resistance, the flooring shall be classified DS, making it suitable for use in areas which are predominantly dry but with occasional spillage, the product must have been fully tested for abrasion resistance to the Frick Taber test EN 660: Part 2 and be in abrasion group F, as defined in EN 649, 2.0mm the Classification is 23/33/42 as defined in EN 685, in respect of light fastness, the flooring shall have been fully tested to ISO 105-B02 Method 3 and obtain  $\geq 6$ .

Colour:

Code:

### INSTALLATION: (PLEASE NOTE: ALWAYS USE COMPATIBLE PRODUCTS FROM ONE SUPPLIER)

#### RECEIPT & STORAGE

- > Check that colours correspond to those ordered, that quantities are correct and there is no obvious damage.
- > In particular, check that tiles are from one batch, if that was requested on the order.
- > On arrival at site, the tiles should be stored indoors, together with the adhesive, at a consistent temperature of between 18°C and 27°C for at least 24 hours prior to laying.
- > Following off-loading, boxes should be stacked no more than five high during the conditioning period. The boxes should be opened and conditioned in the area where they are to be installed.
- > To achieve best results, site conditions should be as described in BS 8203. A working temperature of between 18°C and 27°C is required for at least 48 hours prior to, and during, the laying period and for 24 hours afterwards. Conditioning areas and laying areas should be of similar temperature, to prevent thermally induced dimensional changes.

#### PRIOR TO INSTALLATION (UNDERFLOOR HEATING)

On installations where underfloor heating is used:

- > The system should be fully tested and commissioned prior to the flooring installation commencing.
- > Underfloor Heating systems should be switched off for a minimum of 48 hours prior to the installation commencing. The system should remain off and fully cooled during the installation and for a minimum of 48 hours afterwards. It should then be slowly brought back up to the working temperature incrementally over several days.
- > A maximum subfloor temperature; (at the adhesive line) of 27°C should never be exceeded.

**KEY POINT** When underfloor heating is the only source of heat, alternative measures must be taken to meet all site condition requirements, as previously mentioned.

- > Specialist high temperature adhesives should be used in areas with underfloor heating, direct sunlight, and areas of high solar gain. Please refer to the Polyflor Approved Adhesive List or contact your adhesive manufacturer for more information.

## SPECIALIST FLOORING & WALL PROTECTION PARTNER

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## **PREPARATION OF WORK AREA**

The work area should now be prepared to receive the tiles.

- > Ensure that all other trades have completed their work and removed all their equipment and materials.
- > Remove all debris and vacuum the whole subfloor area. Check the condition of the subfloor and make good as necessary.
- > Stone or power grind any cementitious subfloor to remove any 'nibs' or ridges. Remove any surface contaminants, which may affect adhesion.
- > Sweep or vacuum again prior to laying.
- > If required by the contract, or if in doubt, check the moisture content of the subfloor and record the results and method used.
- > Good lighting is essential.

## **LAYOUT OF TILES**

Although many floor layers regard tiles as being easier to lay than sheet, the layout of the tiles can be critical to the success of the installation. The regular form of tiles, especially when laid in contrasting colours, can accentuate deviations in the building line emphasising the need for detailed planning of the layout. Work from the centre of the room and loose lay tiles to check the layout will make the final appearance correct from any viewpoint. This is especially important where a geometric design is incorporated into the floor.

**KEY POINT** *When setting out tiles, always start from the centre of the room*

## **MEASURING AND MARKING OUT**

### **Straight Tiling — Setting Out**

- > Measure the room to be laid, in both directions, including any alcoves.
- > Mark a centre line X. Ensure it is central to the room dimensions.
- > Loose lay tiles to ensure there are no small cuts at the perimeter. If small strips are evident, move the centre line across half a tile in either direction to create an acceptable sized cut.
- > Find the centre of line X and mark the Centre Point (CP).
- > Mark arcs 1 & 2 at equal distances from CP on the centre line using point A on your trammel.
- > With points 1 & 2 as centres, use point B on your trammel to draw further arcs intersecting at 3 & 4.
- > Strike a line through point 3 & 4 ensuring it passes through CP.
- > Line Z is now 90° to line X.
- > Double check using the 3,4,5 method.

### **Diagonal Tiling — Setting Out**

- > Set out as for straight tiling. Ensure both lines are at 90° to each other.
- > At CP (Centre Point), use point B on your trammel to mark arcs at 1, 2, 3 and 4.
- > With points 1 & 3 as centres using point B on your trammel draw arcs to intersect each other at A.
- > With points 2 & 4 as centres using point B on your trammel draw arcs to intersect each other at C.
- > Strike a chalk line from wall to wall through points A & C; if no error has been made, this line will pass through CP.
- > With points 1 & 4 as centres using point B on your trammel draw arcs to intersect each other at D.
- > With points 2 & 3 as centres using point B on your trammel draw arcs to intersect each other at B.
- > Strike a chalk line from wall to wall through points B & D; if no error has been made, this line should pass through CP.
- > Double check using the 3,4,5 method.

## **SPREADING THE ADHESIVE**

- > Once the start point has been established, depending on the size of the area and the type of adhesive to be used, it may be necessary to section off the area so that the adhesive can be applied to areas that can be laid within the open time.
- > Always follow closely the approved adhesive manufacturer's instructions.

> Spread the adhesive using a suitable trowel to the manufacturer's recommendations ensuring that the correct notch size is maintained throughout the installation.

> If the notches on the trowel shows signs of wear, renew immediately.

> If using a Polyflor approved pressure sensitive adhesive it may be necessary to flatten out any resultant serrated adhesive edges using a lambswool roller pre-wetted with adhesive to prevent 'grin through' once the installation has been completed.

> When a section has been laid, except for the perimeter, it should be thoroughly rolled in both directions with a 68kg articulated floor roller. Repeat for each section until the main field of tiles has been laid.

> It is advantageous to leave the last full tile or plank and the cut at the perimeter without adhesive until all planks have been cut to size.

#### **ADHERING THE MAIN FIELD OF TILES**

The decoration of tiles on some product ranges is randomly distributed and in marbled styles can be heavier on some tiles than others. To prevent 'heavy' and 'light' areas, the tiles should be unboxed and, if required, 'shuffled'.

> Ensure the backs of the tiles are free from dust prior to laying.

> Once the adhesive is ready to accept the tiles, place the first tile at the starting point, which is the intersection of the two centrelines. Press well down in the centre of the tile and then run a thumb around the edge, ensuring that all air is expelled.

> Place the next tile in position, alternating the direction (tessellation) of marbling or colour, and proceed down the centreline, laying two tiles wide i.e., one tile either side of the centreline.

> It is essential to keep the tiles exactly on the centreline.

**> When using 'high tack' adhesives such as pressure sensitive adhesive, take care not to twist or distort the tile whilst laying. If a tile is stretched, dimensional stability will eventually return the tile back to its original shape and the adhesive bond will be broken.**

**KEY POINT** *Directional or marbled tiles need 'shuffling' and require laying in alternating directions.*

> Repeat the sequence along the centreline, at right angles to the first. Then, working from the completed centrelines, finish the section, taking care that tile bond is maintained throughout. Alternatively, the pyramid layout can be followed.

> Any excess adhesive should be removed as work proceeds.

> When a section has been laid, except for the perimeter, it should be thoroughly rolled in both directions with a 68kg articulated floor roller.

> Repeat for each section until the main field of tiles has been laid.

#### **CUTTING THE PERIMETER TILES (STRAIGHT LAID)**

Two techniques are commonly used for cutting perimeter tiles. The choice is mainly dependent upon the run out of the wall.

##### **Overlapping Method (Straight Laid)**

Used when there is little or no run out of the abutting wall.

> Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

> Place another full tile on top of the tile to be cut with its 'top edge' against the wall or set-in coved skirting (refer to fig. 5).

> Scribe a line onto the tile to be cut, using the 'bottom edge' of the top tile as a guide.

> Cut the tile to the scribed line, loose lay into position, and check the fit. Repeat along the whole wall.

##### **Scriber Method (Straight Laid)**

Used when the wall run out is quite severe or when the wall profile cannot be picked up using a straight edge.

> Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

> Set the bar scriber to the size of tile being laid.

> Trace the profile of the wall onto the tile to be cut, ensuring the bar scriber is kept upright and square to the edge of the tile.

> Cut the tile to the scribed line, loose lay into position and check the fit. Repeat along the whole wall.

#### **CUTTING THE PERIMETER TILES (DIAGONAL CUT)**

Three techniques are commonly used for cutting perimeter tiles. The choice mainly depends upon the run out of the wall.

*Overlapping Method (Diagonal Cut)* Used when there is little or no run out of the abutting wall.

> Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

> Place another full tile on top of the tile to be cut (diagonally) with the 'top edge' against the wall.

*Both the Overlapping and Scriber Methods can be used to fit around projections such as door frames. Similarly, a template can be made or a profile gauge containing movable pins used for awkward shapes.*

The corresponding point of the tile should then be followed to mark the underlying tile.

> The overlapping tile should then be moved over to mark the second part of the underlying tile.

> Following both marks, a straight edge can be used to line both marks and a cut can be made.

> Cut the tile to the scribed line, loose lay into position, and check the fit. Repeat along the whole wall.

*Template overlapping method (Diagonal Cut)*

> Cut a template exactly to the size between the diagonal points (e.g., 423mm for 300mm tiles).

> Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way (fig. 8).

> Place the template tile on top of the tile to be cut with its 'top edge' against the wall.

> Scribe a line onto the tile to be cut, using the 'bottom edge' of the tile as a guide.

> Cut the tile to the scribed line, loose lay into position, and check the fit. Repeat along the whole wall.

*Scriber method (Diagonal Cut)*

Used when the wall run out is quite severe or when the wall profile cannot be picked up using a straight edge.

> Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

> Set the bar scriber to the size of tile between the diagonal points of tile being laid.

> Trace the profile of the wall onto the tile to be cut, ensuring the bar scriber is kept flat to the floor and square to the edge of the tile.

> Cut the tile to the scribed line, loose lay into position, and check the fit. Repeat along the whole wall.

*Adhering the Perimeter Tiles*

Once a wall edge has been fitted and loose laid, turn all the tiles inward so as not to lose their position.

> Spread the adhesive right up to the edges. When the adhesive is ready, lay the perimeter tiles.

> Wipe up excess adhesive as work progresses.

> Roll well with a 68kg articulated roller. Use a small hand roller in areas that are inaccessible.

> Repeat the process for all four walls.

> Finally, the whole floor should be given a second rolling, approximately one to four hours later.

## **INSTALLING TILES IN LARGE AREAS**

Maintaining a clearly defined straight line over long distances can be difficult and often leads to inaccuracies. To eliminate this problem, an alternative technique is used when laying tiles in large areas:

**KEY POINT** *Construction of a pyramid should always start at the centre of the baseline.*

> Establish the central starting point, as described previously, minimising small cuts on perimeter tiles.

> Lay the first pyramid of tiles from the centrelines. Ensure a close bond is always maintained.

> Repeat this sequence on the opposite side of the centreline. Continue working in larger and larger pyramids, until only the perimeter tiles require fitting.

> Fit the perimeter tiles.

## **WELDING OF VINYL TILES**

Polyflor recommend that all 608mm tile installations be heat welded. The use of a contrasting weld rod can be used to create simple design effects. To calculate how much weld rod is required for the installation, multiply the number of square metres laid by 3, to give you the number of linear metres of weld rod. Further information on heat welding can be provided.

**MAINTENANCE:**

**NOTE: NEVER USE A BLACK PAD TO SCRUB A PU COATED FLOOR**

1. Post Installation

- All loose dirt such as dust, grit, sand etc. must be removed, preferably by vacuuming the floor.
- The floor should then be cleaned using a neutral detergent, diluted as per the manufacturer's instructions, machine scrubbed and dirty cleaning solution wet vacuumed off the floor. (If a wet vacuum is not available, a mop and wringer system can be used).
- Adhesive can be removed with an appropriate solvent such as Polyflor Powerclean if necessary. As a principle, aggressive solvents should be avoided as these may affect the flooring, leaving dull spots). More powerful detergents such as PRO-INOX (previously Resinox) from Industroclean can be used to remove persistent soiling which is not removed by the initial clean.
- The floor should then be rinsed with clean water and wet vacuumed until all traces of the alkali detergent are removed. Two coats of a matt sealer such as Proflor HM (Mepol HM) should be applied to as per the manufacturer's instructions.

2. Daily

- Sweep/mop using a disposable cloth system such as the Masslin system or vacuum to remove dust and grit; (Ensure that the vacuum is fitted with a Hepa filtration system in a healthcare environment)
- Spot or damp mop where required using a neutral detergent such as PROCLEAN (previously Resal).

3. Interim or weekly clean

- Periodic rejuvenation can be carried out if preferred or required, the frequency of which determined by individual circumstances. This rejuvenation can be a scrub using a machine, followed by application of the sealer to protect the floor. A spray buff routine is also appropriate and very effective in reducing the need for a continuous strip and seal.

We recommend that professional maintenance product suppliers be approached to determine the specific maintenance requirements for the application. Industroclean who supply the Pro range of products can be contacted directly on (011) 801 4600.

**This program will keep maintenance costs to a minimum and requires sealers.**

Sufficient entrance or barrier matting is highly recommended and will greatly ease the maintenance programme.



# Polyflex Plus

**HOMOGENEOUS**  
Semi Flexible Tiles



**Arran Beige 7420**  
NCS S 1505-Y30R LRV 58



**Brecon Beige 7040**  
NCS S 4010-Y10R LRV 32



**Durham Fawn 7400**  
NCS S 2010-Y40R LRV 47



**Cambrian Bronze 7100**  
NCS S 5010-Y30R LRV 26



**Pennine Fawn 7030**  
NCS S 3005-Y50R LRV 38



**Jersey Tan 7410**  
NCS S 3020-Y40R LRV 34



**Wensley Beige 7390**  
NCS S 2010-Y50R LRV 48



**Avon Sand 7080**  
NCS S 3020-Y10R LRV 37



**Dover Grey 7330**  
NCS S 2002-G50Y LRV 58



**Border Grey 7110**  
NCS S 2502-Y LRV 50



**Mouline Grey 7310**  
NCS S 3502-B LRV 35

DUOTONE MARBLING

## TRADITIONAL MARBLING



**Dark Brown 6300**  
NCS S 8005-Y80R LRV 8



**Black Tulip 6040**  
NCS S 8502-B LRV 5



**Firth Grey 7060**  
NCS S 5000-N LRV 26



**Cotswold Green 7010**  
NCS S 4010-G30Y LRV 30



**Lakeland Blue 7350**  
NCS S 3040-B90B LRV 26

Colours include a secondary complementary colour.  
This decoration can only be appreciated by viewing a larger sample piece.



NCS = Natural Colour System LRV = Light Reflectance Value



# Polyflex Plus

Polyflex Plus PU is a durable, general purpose vinyl tile suitable for most contract situations. The excellent performance makes Polyflex Plus PU a good choice in schools, supermarkets and offices. The excellent performance of Polyflex Plus makes it a particularly suitable and economical solution for social housing refurbishment projects. With excellent durability, ease of maintenance and endless design possibilities, Polyflex Plus provides the ideal flooring solution to complement any interior design scheme.



	<b>Gauge</b>	ISO 24346 (EN 428)	2.0mm
	<b>Tile Size</b>	ISO 24342 (EN 427)	2.0mm: 300 x 300mm = 4.5m <sup>2</sup>
	<b>Total Weight</b>	ISO 23997 (EN 430)	2.0mm: 3800g/m <sup>2</sup>
	<b>General Performance</b>	ISO 10581 (EN 649)	Conforms
	<b>Use Area</b>	ISO 10874 (EN 685)	
	<b>Reaction to Fire</b>	EN 13501-1 ASTM E848	Class Bfl-S1 Class 1
	<b>Electrical Behaviour (body voltage)</b>	EN 1815	≤2kV Classified as 'antistatic'
	<b>Slip Resistance</b>	EN 13693	Class DS
	<b>Residual Indentation</b>	ISO 24343-1 (EN 433)	≤0.10mm
	<b>Dimensional Stability</b>	ISO 23999 (EN 434)	≤0.25%
	<b>Flexibility</b>	ISO 24344 (EN 435)	(Method A) Pass 40mm mandrel
	<b>VOC Emissions</b>	Indoor Air Comfort GOLD AgBB/ABC	Euroflor certified product Pass

**Environmentally Preferable Flooring** - Polyflex Plus PU achieves a BRE Global Environmental Generic A+ rating. Generic EN 15804 Environmental Product Declaration (EPD) available on request. Polyflex Plus PU is 100% recyclable and contains 25% recycled material. Recyclable via the Recofloor scheme. Visit [www.polyflor.com/sustainability](http://www.polyflor.com/sustainability)

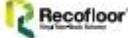
**PU** - Polyflex Plus PU features a polyurethane surface treatment which provides an excellent foundation for an easy, ongoing maintenance regime.

 For information regarding handling and installation, adhesives, maintenance, applications, chemical resistance and product warranty, consult Polyflor Customer Technical Services on +44 (0)161 767 1912, or email [tech@polyflor.com](mailto:tech@polyflor.com). The data presented is correct at the time of printing. For latest information, please visit our website [polyflor.com](http://www.polyflor.com). Decoration and shade may vary slightly from the samples shown.

 **100% RECYCLABLE**  
**25% RECYCLED MATERIAL**

 **A+ BRE**  
Global Environmental Generic A+ rating

 **EPD**  
Environmental Product Declaration

 **Recofloor**  
Recycling Scheme

 **Pi**



**UK CA CE**  
BS EN 14041 EN 14041

**POLYFLOR**  
SUSTAINING THE WORLD

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*James Hildred*  
FLOORING

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