SWIGA EWI Method Statement
For the Installation and Quality Control of External Wall Insulation Systems
The Approved Installer and System Certificate Holder will be responsible for producing their own individual Method Statement.

The Method Statement must include the following sections in the order shown to meet the requirements of the BBA Inspection Scheme.

1. General:
2. The System overview:
3. The System components:
4. Approved Installer:
5. Preparation of the Substrate:
6. Storage and Handling:
7. Adverse Weather:
8. Protection of adjacent surfaces:
9. Quality Control:
10. Execution of the System:

For guidance a Draft Method Statement acceptable to the BBA Inspection Scheme follows.

For the installation and quality control of the [Name of system] external wall insulation system [BBA or equivalent] certificate [number xxxx]

1. General:

1.1 This document is to be read with the appropriate BBA Certificate or equivalent UKAS accredited Certificate, manufacturer’s literature and the project specific Contract Documents.

1.2 The products and installation of the [name of System] EWI system (hereafter called the’System’) shall be as stated in the UKAS accredited Certificate and this Method Statement.

1.3 This Method Statement is limited to the installation of the system and is not construction project specific. The approved [name of System] installer shall provide a project specific Method Statement to the construction client, which may include this document as part submission.

2. The System overview:

2.1 The system consists of [name of System] insulation, of calculated thickness, and an average density of [x] kg m\(^{-3}\) and minimum density of [x] kg m\(^{-3}\), respectively. The insulation is applied to the external walls of new and existing domestic and non domestic buildings, by adhesive and/or mechanical means, and is coated with a reinforced render, finished with [name of System] decorative coat or system.

3. The System components:

- Base profile
- [name of System] Adhesive Mortar
- [name of System] Insulation slabs (see 2.1)
- Mechanical fixings
- [name of System] Base Coat
- [name of System] Reinforcing Mesh
- [name of System] Masonry Primer
- [name of System] Decorative Finish(es)
- Base beads, Stop beads, Mesh angle beads, hydrophobic tape, movement beads, sealants and façade paints.

Ancillary products:

Commonly used ancillary products include a range of aluminium profiles, both colour coated and or mill type finished. These should be resourced from a approved [name of System] supplier and to [name of System] approved design and specification.

Other ancillary products include plastic air bricks, grilles and louvres, pattress or support anchors.

4. Approved Installer:

4.1 The installation of the system must be by an approved installer organization, using suitable skilled and experienced operatives.

4.2 Installers must have been trained, assessed and approved by the System Certificate Holder and subject to a minimum of two work in progress inspections per year by the System Certificate Holder, as required by the BBA Inspection Scheme Documen

5. Preparation of the Substrate:

5.1 The installer is to carry out a survey of the substrate, prior to commencement of the installation, to access the suitability of the substrate for use. This survey may be carried out by the System Certificate Holder, and a written report supplied to the Installer. As a minimum the pre-installation site inspection shall include examination of rainwater pipes, waste and overflow pipes, adequacy of dpc, roof overhang (a minimum 75mm overhang shall be retained on completion of works) and soil pipes.

5.2 The condition of the stability of the substrate must be considered, and that of the integrity of any coatings or finishes applied to it. All loose and friable coatings...
and renders must be removed. In the case of render removal, isolated patches must be re-rendered flush with sound existing. Should render to entire wall or elevation planes be removed, it is not necessary to re-render unless required for levelling or structural reasons. Where wholesale render has been removed, the use of mechanical fixings is still required.

5.3 The flatness of the surface must be checked and excessive irregularities (deviations greater than 20mm in 1m) made good prior to installation.

5.4 The pull out strength of the fixings in the substrate walls is determined and the number and depth of fixings required for that substrate calculated using these figures taking into account the site wind speed data and an appropriate safety factor.

5.5 Any organic growth must be removed and neutralized prior to the installation of the system. This should be completed by the use of a fungicidal treatment, approved by the System Certificate Holder.

5.6 In circumstances of building neglect, it may be necessary to affect repairs to the building fabric prior to the installation of the system.

5.7 All associated builders works such as removal of fixtures and fittings, alterations to services, fences, gate posts, restricting foliage, temporary or light structures (greenhouses, garden sheds and the like), porches, canopies, removal of unnecessary architectural features etc are to be carried out prior to commencement of installation of the system.

5.8 Some post installation builders works may be necessary to reinstate services, fixtures and fittings etc.

6. Storage and Handling:

6.1 Care should be taken in offloading, distribution and storage of the materials. Products should be protected, until ready for use, by maintaining the wrappings and protection afforded since factory dispatch.

6.2 All products should be stored within a secure location, as described in the Certificate, protected from the weather and with a provision for temperature moderation to eliminate damage to the products.

6.3 Powder bags are to be stacked on pallets, above ground, clear of surface water and splash back, with overall precipitation protection. In cold weather, bagged products should be stored in protected environs.

6.4 Aqueous based products, such as primers and top coats, must be stored in temperature controlled conditions during cold periods to avoid frost/freeze damage and to avoid prolonged or intense exposure to the sun.

6.5 Ideally all small and metal components should be stored in secure locations to avoid damage and loss from open packaging.

6.6 No single unit components are heavier than 25kg. Tubs have integrated carrying handles.

6.7 Bag powder products are in 25kg single units for ease of handling.

6.8 The installer is to provide its own risk assessment for the handling, distribution and use of and disposal of the products and resultant packaging.

6.9 Any mechanical lifting of materials from preparation area to work face must be carried out only after a full risk assessment and method statement has been approved.

7. Adverse Weather:

7.1 The [name of System] system must not be installed to frozen substrates, frost bound surfaces, or when the materials are or have been affected by frost or become frozen.

7.2 The System shall not be applied when the air temperature is below 5°C on a falling thermometer or 3°C on a rising thermometer, nor when the air temperature or surface temperature is above 30°C unless the surface is protected from the sun.

7.4 Any coatings that have been affected by frost or precipitation must be removed, the substrate checked for integrity, repaired as necessary and the finishes reapplied.

8. Protection of adjacent surfaces:

8.1 All adjacent surfaces should be fully protected during the installation of the system, and all protection is to be carefully removed and disposed of after completion of the works. Any residue to be carefully removed from finished surfaces in a non abrasive manner.

8.2 Adequate protection to the adjacent ground surfaces is to be provided, to prevent damage from the application and from potential spills.

8.3 Protection to local surfaces is also required when mixing bagged products and tubs in a preparation area.

9. Quality Control:

9.1 All products are to be ordered from [name of System Certificate Holder ], and are to be project specific and traceable to the project in question.

9.2 All work is to be carried out in compliance with this Method Statement, the Contract Documents, the BBA (or equivalent) Certificate and project specific details.

9.3 All installation works to be fully monitored by the installation organization, with check sheets for each location and discipline, checked, signed and dated for record purposes as required by the BBA Scheme Document. These records to be held on site, with full copies issued to [name of System Certificate Holder] and ultimately retained on the project files at the Approved Installer’s Office. Any deviation from approved and accepted installation practice must be
10. **Execution of the System:**

10.1 **Base Profile:**

10.1.1 The profile dimensions shall be selected to suit the insulation thickness. The profile shall be set above ground DPC level, or at a distance of nominal 150mm above the mean external ground. Additional base profiles may be required at junctions with flat roofs, above projecting bays, porches, building abutments etc.

10.1.2 Base profiles are to be installed using the approved certificated fixings for the substrate and to be at nominal 300mm centres. Internal, external and irregular angles are to be neatly formed, maintaining the leading edge upstand. Care is to be taken to external corners of the base profile, in pedestrian traffic areas, to ensure no sharp edges.

10.1.3 Base profiles may be notched out at the back upstand and bottom to accommodate cables, conduits and the like, but must be provided with additional fixings to both sides of the cut out.

10.1.4 Where base profiles are to be installed to bellcast or other projecting features, the profile may be packed off using proprietary shims, or installed in conventional manner after the bellcast or projection has been removed. It is likely that the insulation will require notching on the bedding side, to accommodate any packing out of the base profile. This should be carried out carefully to ensure the insulation maintains a tight fit into the base profile.

10.1.5 When installing the base profile to irregular or undulating backgrounds, shims or packers are to be used to ensure flat alignment of the profile. A hydrophobic tape to be installed to the back face of the profile upstand in these circumstances to prevent moisture, insects and excessive air movement behind the system.

10.2 **Pattress or grounds for fixing supports:**

10.2.1 Where support fixings for rainwater goods, soil and vent pipes, signage, external lights, fixtures and fittings etc are required, impact resistant blocks are to be installed on the substrate, to sizes and locations suitable to accept the post installation fixings. Proprietary blocks are available from the Certificate holder.

10.2.2 Where longer grounds are required, i.e. for the support of canopy roofs, and for insulated flashings, treated softwood sections may be installed, to the same thickness as the mineral wool insulation.

10.3 **Insulation:**

10.3.1 The insulation is to be [name of System] slab, as described in 2.1 above, to the thickness as specified in the Contract Documents, corrected before further disciplines or work locations commence.

10.3.2 The insulation slabs are to be installed in brick bond manner, with vertical joints staggered and the minimum cut slab being not less than 200mm wide.

10.3.3 Hydrophobic tape is to be installed at the outer edge of the insulation slab, at all interfaces with other materials, i.e. vertical and horizontal abutments, under and around cill ends, beneath copings/under cloaks, to frames and around penetrations.

10.3.4 [name of System] Adhesive Mortar is mixed using approximately [x] litres of clean water for each 25kg bag, using an electrically driven paddle mixer to give a smooth, workable consistency. It is applied to the bedding side of the insulation slab either by notched trowel at approx [x] kg m⁻² or ribbon and dab method for more uneven surfaces. The minimum thickness of the adhesive mortar is not less than [x] mm, the maximum thickness of adhesive mortar is not to exceed [x] mm.

10.3.5 The insulation slabs are to be tamped with a straight edge, level or batten to line and level, and to have a minimum bonding surface adhesion to the substrate of [x]%

10.3.6 The pre installation survey shall pick up any discrepancies in the substrate alignment, particularly steps in the wall plane at differing floor levels. This will allow the selection of differing thicknesses of insulation to assist in overcoming this problem.

10.3.7 External and internal corners shall have alternative courses cross lapped at the ends.

10.3.8 At all corners of openings within the system, the insulation slabs must be L shaped.

10.3.9 Insulation slabs are to be neatly trimmed around all penetrations, and be fitted with hydrophobic seal tape around the entire perimeter of each penetration. This may be carried out in two halves for ease of application with the slab joint in the horizontal plane.

10.3.10 All insulation slabs are to be tight butted together, with any open joints filled with slivers of insulation or foam insulation. Under no circumstances is render to be used to fill open joints.

10.3.11 Movement joints are to be formed through the system where they occur in the substrate. The insulation is to be cut neatly to both sides of the joint, the width of which is to be determined by the design criteria of the joint. This will determine which style of proprietary movement bead to install.

10.3.12 The bedding face of the insulation slab may be notched to accommodate surface fixed conduits, cables etc. Notching of the boards must not exceed 1/3rd thickness of the board. Should working around surface obstructions involve substantial cutting of boards, then a bridging board detail shall be used.

10.3.13 Under no circumstances are gas pipes (of any size
10.6.1 The installed insulation slab shall be protected from exposure to inclement weather and the Base Coat shall only be applied to dry boards. For guidance, after a light shower the insulations shall be left to dry for a minimum of 24 hours and after heavy sustained driving rain a minimum of 72 hours. In all cases, the installer must be satisfied that the insulation has not be adversely affected by moisture ingress and is not holding any residual moisture prior to the Base Coat being applied.

10.6.2 [name of System] Base Coat, mixed as for the Adhesive Mortar (see 10.3.4 above), is to be trowel applied to the face of the insulation to a nominal thickness of [x] mm, and the Reinforcing Mesh installed (see next section). A pass coat of nominal [x] mm is to be laid wet on wet to seal the reinforcing mesh. The mesh must lie in the top third of the base render.

10.6.3 Fixings pins should not normally be bedded deeply into the insulation. In the event that isolated cases do occur, fire rated foam is to be applied locally around the head of the pin, allowed to cure and trimmed flush.

10.6.4 Should subsequent base coat applications be necessary over the initial layers, then additional reinforcing will also be necessary.

10.6.5 Any trowel lines in the cured base coat should be rasped off, prior to priming.

10.6.6 The base coat should be uniform in thickness, taken to a minimum of [x] per m², or as otherwise specified following a site survey, with additional fixings being required at openings, at external corners, high wind locations (tunnels etc), in progressive stages up high rise buildings and in coastal and exposed locations as required. Holes are to be drilled to a minimum depth of 50mm through the insulation at a minimum of 150mm from each corner. The mechanical fixings are inserted and tapped firmly into place.

10.6.7 The base render and mesh shall run continuously across pattress blocks and timber grounds.

10.6.8 Where the design of the doors and windows preclude the use of an insulated reveal, and the windows are set back behind the front substrate face, the reveals are to be rendered to match the system or lined with an alternative product (uPVC liner, aluminium powder coated window pod etc).

10.6.9 Where the reveals are to be rendered, the base coat is to be applied to a maximum of [x] mm, with the reinforcing mesh bedded within the top 1/3 of the render. A corner wing mesh bead is to be installed to line and level on the corner of the insulation, to align with the frame, leaving, when finished, a constant margin around the frame. The mesh of the wing bead is to be supplemented by a full reveal width Reinforcing Mesh to ensure integrity of the system.

10.6.10 Should the reveals require a render preparation coat to bring to line, prior to the system base coat application, this must be carried out with the approved render, and with the use of stainless steel, aluminium or uPVC beads where necessary.

10.6.11 Prior to the application of the Masonry Primer and top coats, a bead of clear or colour coordinated silicone sealer is to be applied at the interface between the base render and frames, cills, cappings, penetrations etc. The surfaces must be clean and dry, with the minimum contact being 6mm on porous surfaces and 4mm mm on non porous. The sealant shall be struck off with a timber blade, or similar, to ensure good adhesion and a constant profile along the joint.

10.6.12 As for the insulation, the completed Base Coat must be protected as far as possible from inclement
weather and should exposure occur, a close examination made to determine whether the product has cured correctly. If any pitting has occurred, a 1mm skim coat of Base Coat shall be applied.

10.7 Reinforcing Mesh:

10.7.1 The reinforcing mesh is to be laid into the base coat and trowelled in so as to cover the mesh, whilst being able to see the outline impression of the mesh grid. The mesh is to be installed in vertical drops where possible, with 100mm laps at the edges and at drop ends. Particular care is to be taken when dressing mesh around penetrations, features and breaks, and to perimeters to ensure complete system coverage and lapping.

10.7.2 The reinforcing mesh to be fully lapped with all mesh beads and to be extended full depth of all base profile leading upstands / drips and other profiles where appropriate.

10.7.3 Corner stress patches, nominal [X x Y]mm are to be installed to the corners of all openings within the system.

10.7.4 Within reveals, the mesh is to be carried around internal corners, to ensure continuity of reinforcing at the internal junctions of the jambs and heads.

10.7.5 Where a high impact resistant system is required, and this is to be created by the use of an impact resistant mesh (armour mesh), this mesh is to be installed first, to the appropriate locations, bedded in the Base Coat Render, but with no overlaps. The base coat must be allowed to fully cure before the installation of the reinforcing mesh and base coat.

10.7.6 Where the high impact mesh is installed to a height which is not full wall height, there will be a ridge effect at this point, unless a feathering out base coat is applied for a further 1.0 to 1.5m.

10.7.7 Masonry sealer/primer:

10.7.1 To be of the same colour reference as the top coat, and applied as directed on the tub, by roller or brush, to an even and total coverage.

10.8 Top Coat application:

10.8.1 The top coat must be applied to the primed surface within [x] weeks of application.

10.8.2 The [name of System] top coat (see 2.1) is delivered in tubs, which when opened and ready for use, must be thoroughly mixed by electric paddle mixer with clean blades, for several minutes to ensure consistent density.

10.8.3 The top coat is to be applied onto the wall surface with stainless steel trowels and then worked to distribute evenly. Surplus liquid material should be regularly cleaned from the trowel. When evenly spread, texture is applied via the use of a proprietary plastic texturing trowel, using a constant motion and even pressure, moving in a figure of eight across the entire surface. Left and right handed applicators should not be used together for texturing.

10.8.4 Extra care is to be taken when working from scaffolds, to ensure that even texturing is maintained where scaffold lifts restrict working room, and at other restricted locations.

10.8.5 Pre planning of the top coat application is essential, to ensure that sufficient material is available, has been prepared, distributed to the work face locations, that sufficient applicators are available, masking and protection has been completed and the time and that weather conditions are suitable for the extent of work programmed.

10.8.6 Day or work joints may be made within the top coat works. These should ideally be situated at convenient locations, i.e. at corners, floor lines, string courses, cill lines etc. Day or work joints to be prepared by carefully applying masking tape at the line. This should be removed immediately after the top coat application has been completed. When thoroughly dry, the meeting edge of the completed top coat must be tape masked and the adjacent wall section top coated, with extra attention being made to working the top coat up to the tape joint. Again, remove the masking tape when the top coat is still wet, and with a fine brush, stipple wet material along the joint where necessary.

10.8.7 When the specification requires the use of additional coatings this shall be applied only when the Top Coat has completely cured. The substrate must be clean and dry. Drying times may be extended by low temperatures or high humidity.

[Add other decorative finishes eg Dash, Scratch, Brick Finishes etc]

10.9 Installation quality checks:

10.9.1 Regular site installation quality control is to be undertaken. This shall be based on visual inspections at key installation stages, to check on:

- Product compliance, i.e. correct products used at each stage
- Specification compliance, i.e. correct consumption, design compliant, technically compliant
- Installation compliance i.e. line and level, smooth plane, even coverage
- Weather record

The key stages shall be:

- After preparation
- After installation of the insulation
- After mechanical fixing
10.9.2 A handover certificate shall be issued to the client for each completed work section, or building.

**10.10 Operation and Maintenance Manual:**

10.10.1 This shall be produced and presented to the building owner at the completion of the works and shall include the following information.

- The property address
- The building owner / manager
- The Architect or Designer
- The System name
- The System supplier
- The System installer, with full contact details
- The date of completion of the installation
- The System components (project specific)
- The location details of the installation(s)
- The top coat colour(s) and grade
- The [name of the System] Maintenance guide and repair procedure
- A user guide, which includes post installation of fixtures and fittings

This Method Statement is to be reviewed and amended on a regular basis to ensure compliance with current obligations and any changes to circumstances.

Signature.................................................................................................................................

(On behalf of [name of System Certificate Holder])

Name.................................................................................................................................

Date...................................................................................................................................