Standard specification for the application of Thermexx plaster system and Stonewash coating system to 60mm polystyrene fixed to concrete block construction

1.0 PREAMBLE:

This specification is for the application of the Thermexx Sponge Plaster System to EPS Polystyrene fixed to concrete block construction. Concrete blocks are used in a construction system in which the blocks are laid in a conventional manner with reinforcing included, and then filled with concrete mix to form structural walls.

The Thermexx insulated cladding system specified, is a two coat system utilising Thermexx NF Binder and Premix M14 acrylic modified base plaster, reinforced with Thermexx Heavy Mesh, and Thermexx NF Binder and Premix M1 sponge finishing plaster. All plastered surfaces are then over-coated with Stonewash Coating to provide further protection against the local environment. This Specification is a total cladding system with all components supplied by Equus Industries Limited all products are manufactured by Equus Industries specifically for local environments.

2.0 SURFACE PREPARATION:

2.1 Responsibility:

All work in this section shall be the responsibility of the Main Contractor.

2.2 Concrete Blocks:

The Concrete Block installation, including reinforcement and concrete infill shall be made in strict accordance with the Block Manufacturers Design and Installation Manual. In particular the blocks shall be laid true in both vertical and horizontal planes, with all joints to be flushed pointed, and all window, door and services cutouts correctly made. At least 7 (seven) days shall be allowed after concrete placement, for curing and stabilisation to take place, before application of the Thermexx base plaster is begun. Any broken block surfaces shall be refaced with Thermexx Mortar.

NB: All Concrete blocks are to be flushed pointed.

All Structural joints both vertical and horizontal must be in accordance to Block manufacturers Instructions.

2.3 Structural Sealant:

All structural sealant requirements shall be observed and applied in strict accordance with the Block manufacturers Design and Installation manual. Where any doubt is exists, the contractor shall ensure technical support from the Block manufacturer is provided, before commencement of further works. Recommended sealants are Equus/Tremco Tremflex 25 or Equus/Tremco Vulkem 931.
2.4 Inter-Storey Flashing:

Flashings between ground floor and first floor shall be detailed in strict accordance with Block Manufacturers Instructions. All other details are supplied by Equus Industries or shall be drawn job specific by the Architect and must be approved by Equus Industries before commencement of the cladding system.

3.0 SURFACE PRETREATMENT

3.1 Responsibility:

All work in this section shall be the responsibility of the Thermexx installer, unless otherwise expressly agreed. If the EPS polystyrene is fixed by others, the Thermexx installer shall satisfy himself as to the correctness of the fixing before proceeding with any coating/sealing work.

3.2 Materials:

.1 Expanded Polystyrene Sheet:

Shall be 60 mm thick "H" grade self-extinguishing sheet manufactured by James Hardie Specifically for Equus Industries and as tested by Branz in conjunction of the full system for fire ratings. Sheets shall be stress relieved in plant or by fillet stacking on-site prior to fixing. Other thicknesses of EPS sheet may be used for Thermexx Cladding depending on the architectural detailing required, providing design code R-values are maintained.

.2 Fixing Adhesive for Polystyrene to Concrete Blocks:

Apply to dry clean, EPS polystyrene shall to be fixed, using a 1:1 Thermexx Binder/Cement adhesive buttered on to the sheet by Knotched Trowel prior to placing. The sheets must be tightly butted together and must be completely flat against the substrate. Where appropriate, fix all sheets with Dutch Darts to hold the sheets correctly while the adhesive cures.

.2 Cladding Fixings:

Shall be Hilti XIE (Dutch Darts) 4/49mm OD Stainless Steel Polypropylene masonry Fixings as supplied by Equus. All fixings shall be fixed in strict accordance to the manufacturers instructions and Equus Fixing layout sheet.

3.3 Installation:

.1 Detailing:

Thermexx Pre-meshed Corner Beads shall be installed on corners and edges. External changes of direction shall be made only with factory-cut sheet edges on both faces and with sheets butt-jointed. Where angles other than 90° at sheet edges are required, these shall be either factory pre-cut or site-cut using a jig to give uniformity.
.2 Stopping:

All nail holes and surface defects shall be stopped flush using a Thermexx Binder mix as detailed in Thermexx installation instructions, before the Thermexx skin is installed.

All Polystyrene surface voids in joints, that are not tightly butted, shall be filled proud with Equus supplied Gorilla Glue adhesive applied by pistol attachment gun, and sanded smooth/level to adjacent sheeting.

.3 Polystyrene Shapes:(if required)

Any polystyrene shapes to be used to create external detailing shall be correctly cut to size and fitted, using a 1:1 Thermexx Binder/Cement adhesive buttered on to the shape prior to placing. Where appropriate, nail or pin-fixing may be used to locate shapes correctly while the adhesive cures. For thin-section trim, Equus supplied Gorilla Glue adhesive may be used in lieu of the Thermexx Mortar, but correct dry times must be observed.

4.0 THERMEXX INSTALLATION AND SEALING:

4.1 Responsibility:

All work in this section shall be the responsibility of the Thermexx Installer/Applicator up to and including provision of external sealant beads and weatherproof coating system.

4.2 Materials: - All supplied by Equus Industries Ltd.

.1 Windows, Doors and Corners Detail Basecoat (skin):

Thermexx Detailing Plaster, Detailing Mesh, Pre-Meshed Corner Angles, Rolleck and Thermexx Butterflies

.2 Basecoat (skin):

Thermexx NF Binder, Thermexx Heavy Glass, and Thermexx Premix M14.

.3 Bodycoat and Finishing plaster Coat:

Thermexx NF Binder and Thermexx Premix M1

.4 Topcoats:

Equus Stonewash Matt

4.3 Installation:

.1 General:

Installation shall be carried out in Four (4) stages i.e Thermexx Detailing Plaster, Thermexx Base Plaster (skin), Thermexx Sponge Finish and Stonewash Matt coating system. Adequate protection of the adjacent surfaces shall be allowed, particularly for Trowel application coats and subsequent sealing systems.
.2 Thermexx Detailing Skin:

All corners, window, door recessed and opening areas shall be sealed with Thermexx Detailing Plaster into which is embedded Thermexx Detailing Mesh. Pre-Meshed Corner Angles or Rolleck. The Detailing Plaster shall overlap the face of the recess by 100mm and must have a feathered edge for the application of the Equus Thermexx Skin plaster.

.3 Thermexx Reinforcement Butterflies:

To all transitions around windows, doors and other areas of a similar nature shall be reinforced with Thermexx glass-fibre mesh Butterflies as supplied by Equus Industries, All mesh shall be embedded and encapsulated into the Thermexx Detailing Plaster.

.4 Thermexx Skin:

All surfaces shall be sealed off by application of Thermexx Natural Binder /Premix M14 Mortar into which is embedded Thermexx Heavy Glass, finished by trowel to an even finish, with all glass-fibres crimp reinforcement lapped 50mm. Spreading rates, application and detailing shall be strictly in accordance with procedures laid down in Procedure A133 and any subsequent instructions issued by Equus Industries Limited. In all cases the Thermexx skin including Thermexx Heavy glass shall be carried up to all corner angles and base or window trim installed as part of the Thermexx system. Finished surfaces shall be allowed to dry overnight before application of the Finish coat.

.5 Parapet Waterproofing:

All parapet surfaces where the application of the Thermexx Skin base plaster has been applied shall be fully encapsulated with Dexx Liquid Membrane with embedded into 225 gsm Fibreglass, all application procedures shall be observed, and all architectural details shall be provided by the architect.

Or

All Parapets shall be reinforced with Equus/Mapei Mapeilastic and applied by steel trowel to a minimum thickness of 2mm and reinforced with Thermexx detailing Mesh. The mesh shall be encapsulated with the plaster.

.6 Sealant Installation:

All junctions between joinery and Thermexx Cladding and around penetrations, flashings and similar details shall be sealed with Tremco Tremflex 25 or Equus/Tremco Vulkem 931 sealant.

.7 Sponge Finishing Plaster:

All surfaces shall have a further application of Thermexx NF Binder and Premix M1 mixed and trowelled to a sponge finish using spreading rates and application techniques set out in Procedure A133 and any subsequent instructions issued by Equus Industries Limited. Unless otherwise stipulated the texture shall be a smooth or slightly 'turned' sponge finish to match a previously supplied sample.
4.0 COATING APPLICATION:

.1 Primer:

Apply to all Thermexx finishing plaster one (1) full coat of Coverall Primer Sealer by brush or roller at a spreading rate of 8-10 sqm/litre. Allow 4 hours before application of the finishing plaster.

.2 Bodycoat:

Apply to all primed and sealed surfaces one (1) full coat of Coverflexx by brush or roller at a spreading rate of 3 sqm/litre. Allow to dry overnight before the application of the topcoat.

.3 Topcoat:

Allow to apply by brush, roller one (1) full coat of Stonewash Matt at a spreading rate not exceeding 7 sqm/litre, so as to achieve uniform colour and gloss. Ensure that roller banding does not occur by cross-rolling.

5.0 GENERAL NOTES

5.1 Gloss:

The finish shall be Matt as directed by the client/specifier.

5.2 Colour:

For all areas the colour of the Primer and Finishing Plaster shall be the same.

5.3 Approval:

The Specialist Finishes Sub-contractor shall obtain approval from the client/specifier or their representative before cleaning up and stripping off masking in any area.

6.0 MAINTENANCE:

This coating system may be cleaned at any time by low-medium pressure washing with a weak (0.1%) solution of neutral detergent. When recoating is required, either to maintain long-term film integrity or for colour change, this may be carried out using one coat of Stonewash Matt coating. Where major colour change is involved the Manufacturer should be consulted for a specific recommendation.

7.0 CLADDING WARRANTY:

7.1 Cladding:

The Thermexx Cladding Plaster System described in this specification shall be warranted for its Durability for a period of up to 15 (fifteen) years. The Stonewash Matt Topcoat shall be warranted for weatherproofness for a period of 10 (ten) years from the date application is completed.

Such a warranty is issued by Equus Industries Ltd

(a) All work is carried out by the Approved Equus Applicator.

(b) All work is done in accordance with this specification, and any amendments or alterations thereto issued by the Manufacturer.

Such a warranty is issued by the Approved Equus Contractor carrying out the work and is backed by the Manufacturer as to the fitness for use of the materials supplied for the work.