



Re: Epatherm System details – ST James Hospital

To whom it may concern:

We were contacted to review the above building as part of the limerick courts complex. Said buildings are of solid wall construction and a conservation building. The key criteria will be the selection of a natural system that can provide safety in terms of moisture management and comfort.

Our experience in this field suggests that Epatherm Calcium silicate and the associated system of lime renders is the safest when this type of building is upgraded.

We recommend that the internal wall be 'lined' in full with the epatherm system to minimise cold bridging issues where the interior walls meet the external walls. Steels that connect floors to external walls should have thermal bridging measures allowed for.

We will in addition to the epatherm system provided offer the following: -

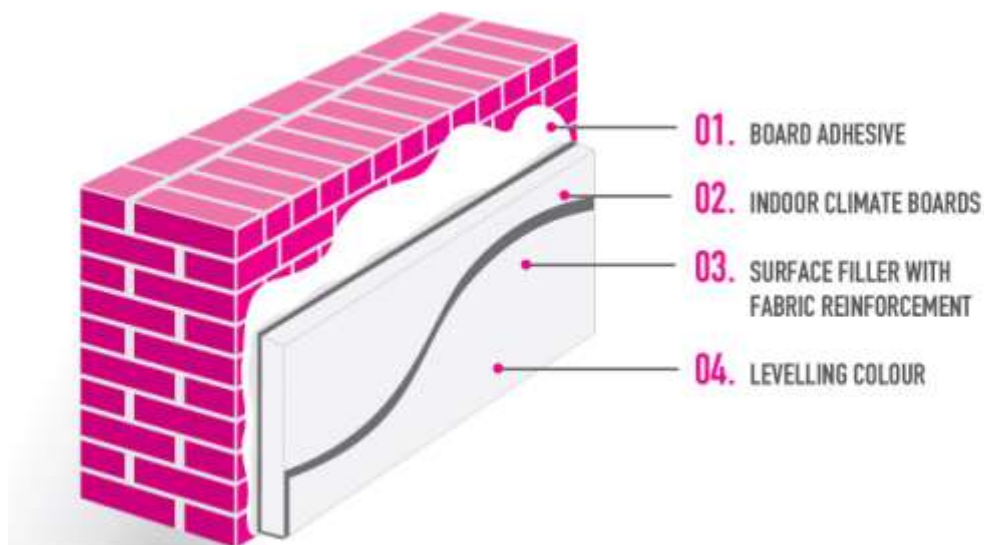
- **Ancillary system certificate provision for BCMS.**
- **Weekly or bi- weekly inspection system via highly trained Epatherm installer. Sequence related to the speed of progress.**
- **Secondary technical inspections by Partel Engineer (Hugh Whiriskey)**

Insulation Guide –EPATHERM GENERAL

1. Ensure existing Brickclean and dry and free of loose components. Use a Lime plaster (Epasit MPM1) to level if required. Generally if brick in reasonable condition the system can be applied directly. Non breathable products such as bonding or multi layered paints should always be removed. Lime levelling coat is preferred in conservation projects.
2. Prime all sides of EPATHERM®etp with Primary coat EPATHERM®etg Use approximately 0.7L per m², allow to react for 45 minutes before the next stage. Freshly sawn edges must be re primed.
3. Apply board adhesive EPATHERM®etk with notched trowel, 4-5kg per sqm
4. Paste and fix Indoor climate board EPATHERM®etp as closely as possible - avoid joints repositioning light switches as necessary. Avoid cross joints keeping 200mm staggered joints. 1000mm * 750mm in 30 or 50mm thickness as standard (20-160mm available on demand 20mm reveal boards available or wedge boards for floor connections)
5. Fill all joints and unevenness on the surface with EPATHERM®multi-eti also applying a base coat of plaster 4-5mm deep, 1-2kg per m²
6. Insert EPATHERM®etw Alkali - resistant glass fibre fabric reinforcement mesh into Multi-eti (5)
7. As the first layer dries apply a Finish coat of EPATHERM®multi-etito desired finish.

The application is propose as follows: -

1. EPATHERM®etkBoard Adhesive
2. EPATHERM®etpIndoor climate board with Primed coatEPATHERM®etg
3. EPATHERM®multi-etialso applying a base coat with EPATHERM®etw Alkali - resistant glass fibre fabric
4. EPATHERM®multi-etifinish coat



Application

Unique system advantages

- Insulation and regulation of room air conditions
- Optimal fire protection
- No health risks - purely mineral composition
- High alkalinity prevents mould growth
- Easy and flexible application

Application Guide – Reveal Detail –AEROGEL BLANKET

WINDOW REVEALS



For locations where the shutters cover the reveal a simple aerogel blanket will be satisfactory.

5mm of insulation (Aerogel) may sound small but it offers a remarkable thermal conductivity of 0.013 or 4.5 times better than the proposed Epatherm board and as such is consistent with the remaining wall.

The application is proposed as follows: -

- **5mm Aerogel** blanket
- **EPATHERM®multi-eti** finish coat

Application Guide –Reveal Detail – Epatherm in 20mm or 30mm – reveal board

For locations where 20mm or 30mm Epatherm boards can fit without restricting weights.

The application is proposed as follows: -

- Ensure existing Brick **clean** and dry and free of loose components (Use a Lime plaster to level if required. Generally if brick in reasonable condition the system can be applied directly. Non breathable products such as bonding or multi layered paints should always be removed.
- Prime all sides of **EPATHERM®etp** with Primary coat **EPATHERM®etg** Use approximately 0.7L per m², allow to react for 45 minutes before the next stage. Freshly sawn edges must be re primed.
- Apply board adhesive **EPATHERM®etk** with notched trowel, 4-5kg per sqm
- Paste and fix Indoor climate board **EPATHERM®etp** as closely as possible - avoid joints repositioning light switches as necessary. Avoid cross joints keeping 200mm staggered joints. 1000mm * 750mm in 30 or 50mm thickness as standard (20-160mm available on demand 20mm reveal boards available or wedge boards for floor connections)
- Fill all joints and unevenness on the surface with **EPATHERM®multi-eti** also applying a base coat of plaster 4-5mm deep, 1-2kg per m²
- Insert **EPATHERM®etw** Alkali - resistant glass fibre fabric reinforcement mesh into Multi-eti (5)
- As the first layer dries apply a Finish coat of **EPATHERM®multi-eti** to desired finish.
- The application is proposed as follows: -
 - **EPATHERM®etk** Board Adhesive
 - **EPATHERM®etp** Indoor climate board with Primed coat **EPATHERM®etg**
 - **EPATHERM®multi-eti** also applying a base coat with **EPATHERM®etw** Alkali - resistant glass fibre fabric
 - **EPATHERM®multi-eti** finish coat



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Separately we assume that the engineer in charge has called for horizontal DPC throughout. This would normally be in the form of a staggered drilled and chemically filled solution - it is a system component for Epatherm and something we would be happy to recommend.

For clarity we confirm as below how the process would work on site in a similar building: -



Lime plaster brick work or clean all brickwork and prime areas where materials are to be applied.

Prime all sides of epatherm boards



Affix adhesive to back of boards and use a notch trowel to ensure even distribution





Fix boards – ensure boards are level with minimal gaps



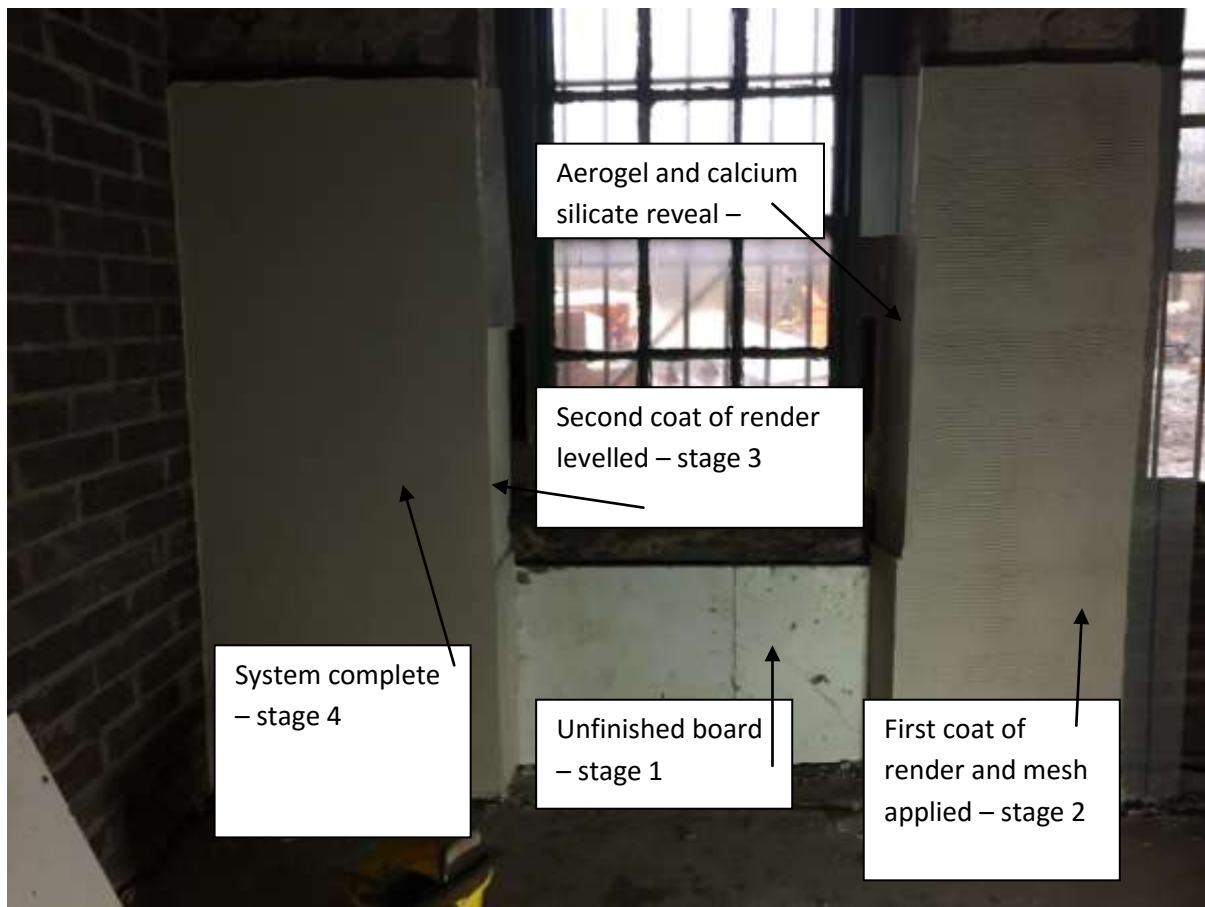
Apply first coat of render and fix reinforcing mesh into plaster



Apply second coat of plaster to smooth mesh and allow to dry



Apply and finish with applicable system finish



If you have any queries please contact me directly,

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