



Art Brick

#### Dear Customer,

Thank you for your interest in Structherm's award winning ArtBrick™ system.

This pack is designed to provide you with a full insight as to how the ArtBrick<sup>™</sup> system can benefit you, the rigorous test program and certification undertaken to validate the system and to provide example case studies to show how the award winning ArtBrick<sup>™</sup> system can benefit you with your future project requirements.

The ArtBrick<sup>™</sup> System provides the ideal solution for creating, or replicating, brick, stone and wood finishes to meet your specific requirements. Our infinite range of textures and colour tints can be combined to create your own unique appearance, or to match the existing property construction.

ArtBrick<sup>™</sup> offers significant advantages over alternative brick finish systems, including:

- Providing a cost-effective solution offering significant savings
- Fast and robust installation process
- Efficient use of products, with no breakages or manufacturing waste
- High-quality materials manufactured and stocked in the UK ready for immediate dispatch
- No extended material lead-times or supply chain delays
- ArtBrick<sup>™</sup> finish is produced on-site to provide a robust, hard wearing solution
- Visually matches existing or proposed real brick, stone or wood constructions
- Can be used for conservation or heritage site applications subject to strict planning constraints
- Can be applied to virtually all building substrates
- Used on property renovations or new build applications
- Subjected to an enhanced weather test program to ETAG 004 and ETAG 017
- BBA Certified for use on all Structherm's cementitious renders
- Enhances the appearance of Brick Effect Renders with a durable multi stock finish
- Looks stunning no matter which finish is chosen

We hope the content enclosed provides you with all the information you need to help you decide to choose ArtBrick™ for your next project.

Should you have any queries, or wish to discuss your specific requirements in more detail, please Email us at info@structherm.co.uk, or call our Head Office on 01484 850098.

We look forward to working with you in the future.

#### Yours Faithfully,

Mark Harrison Managing Director









# Traditional

ArtBrick<sup>™</sup> Traditional can be matched to any existing masonry, be it brick or stone, especially in conservation areas, to ensure the new facade remains in keeping with it's surroundings. It is also possible to 'fine tune' finishes to ensure that whilst similar in appearance, the two can still be easily differentiated.



ArtBrick<sup>™</sup> Standard has a collection of cutting edge finishes and suggested colours which have been carefully selected from past successful projects using our wealth of expertise in resin and texture technology. Simply select a colour, and watch your stock transform.



ArtBrick<sup>™</sup> Stone can be combined with any of the original three ArtBrick<sup>™</sup> flavours to give a super-realistic, award-winning stone finish.



ArtBrick<sup>™</sup> Wood provides the option of either creating a bespoke timber effect for new projects or matching the appearance of existing timber properties such as Swedish Timber, Cedar or painted weatherboard cladding. This is particularly effective in preserving the appearance in conservation areas.



ArtBrick<sup>™</sup> Bespoke is suitable for clients with their own ideas on finish, and can be adjusted and modified as per their requirements. Housing stock and complete boroughs can be transformed into truly bespoke, rejuvenated communities.











SAB001 Light Terracotta



SAB006 Light Brown & Red



SAB010 Sand & Yellow



SAB003 Terracotta Multi



SAB007 Grey & Brown



SAB017 Sand



SAB004 Light Brown



SAB008 Burnt Orange



SAB012 Light Brown & Orange



SAB019 Rich Red & Orange



SAB005 Dark Terracotta Multi



SAB009 Light Grey & Orange



SAB013 Dark Brown







# **CHOOSE YOUR FLAVOUR ARTBRICK™ TRADITIONAL**



**TAB001** Dark Brown



TAB005 Light Brown



TAB010 Light Beige & Grey



TAB014 Rich Red Multi



TAB002 Light Terracotta



TAB006 Terracotta



**TAB011 Rich Orange** 



TAB015 Lightest Brown & Grey



TAB003 Dark Terracotta Multi



TAB007 Terracotta Multi



TAB012 Grey & Brown



TAB016 Brown & Orange



TAB004 Light Grey Multi



**TAB008 Beige** 



TAB013 Rich Red & Orange



TAB017 Light Beige









ArtBrick<sup>™</sup> was recently involved in an enhanced weather testing programme to determine adhesional bond strength, effects of weathering, freezing and thawing.

The weathering experiments were conducted in accordance with the ETAG 004 and ETAG 017. The European Organisation for Technical Approvals (EOTA) is a comprehensive performance and durability evaluation system, which is prepared for plastered exterior surface systems.

23.03.207 START OF WEATHERING CYCLE (according to ETA004) COMPLETION OF WEATHERING CYCLE 23.04.2017

- 3 hours at temperatures 70°C with 0% humidity
- 1 hour of rain at temperature 15°C
- 2 hours at temperature 20°C

**5 FREEZE-THAW CYCLES OVER A 5 DAY PERIOD ACCORDING TO EOTA GUIDELINES** 

- 8 hours at temperature 50°C with 10% relative humidity
- 16 hours of rain at temperature 15°C



PASSED







1kg and 3 Joules

ADHESIONAL BOND STRENGTH USING A HERION MACHINE

Tensioning Speed 50N/sec

# SO RESULTS CONCLUDE THAT ARTBRICK IS MORE THAN SUFFICIENT TO WITHSTAND FAR HARSHER CLIMATES THAN THE ONES IN THE UK.







PASSED









Westdale Services were appointed by Wrexham County Borough Council to deliver a Structherm Structural Cage / regeneration scheme to around 150 Airey properties spanning over 2 phases starting from October 2016, and was completed in June 2018. The Structural Cage accompanied with ArtBrick<sup>™</sup> along with re-roofing and added external works have been carried out to extend the life expectancy of the properties.

An Airey house (Founded by Sir Edwin Airey and constructed after the Second World War), is a prefabricated concrete box structure, which is formed by closely spaced storey-height external wall columns (104mm x 57mm in cross-section and reinforced longitudinally with small steel tubes), to which thin concrete cladding panels are fastened with copper wire.

There is an internal spine wall constructed similarly with columns of 75mm x 57mm cross-section. The first floor and roof beams are bolted to the columns.













Airey properties have massively outlived their expected lifespan, and are designated by the BRE as 'Defective'.

Structherm's Structural Cage and ArtBrick™ make the houses look and perform like properties of a traditional construction.

- Life expectancy of the properties have been extended up to 30 years.
- Thermal performance of a new build
- Complete appearance transformation
- Cost of refurbishment with ArtBrick<sup>™</sup> is far cheaper than any other method.











### Structherm ArtBrick<sup>™</sup> Matching Service

Structherm are pleased to offer a finish matching service for our unique ArtBrick<sup>™</sup> product. Our matching service can be utilised to replicate existing brick, stone or wood finishes.

Our samples can be produced by matching photos, brick slip or stone samples, or via a detailed site visit for a close-up examination of the existing finish and local surroundings.

Using a combination of our extensive range of texture surface finishes and colour tints, we are able to match the appearance of existing property construction types. We are also able to produce bespoke samples to your own requirements and specific project needs.

Our ArtBrick<sup>™</sup> samples are particularly useful for gaining approval from local authority planning departments, particularly in conservation areas or when submitting applications for use on heritage buildings.

We produce 2 standard sample sizes:

- AB01 = 440mm x 215mm
- $AB02 = 900 \text{mm} \times 400 \text{mm}$







We can also produce full system samples to show the External Wall Insulation system build-up to provide a better understanding of the system for client and resident approval and engagement.

Art Brick

ArtBrick<sup>™</sup> is a multi-award winning, cost effective finish with a fast and robust installation process providing an efficient use of materials without breakages or manufacturing waste.

It has been rigorously tested to ETAG 004 / ETAG 017 enhanced weather test programs and is BBA approved for use on any cementitious background so you can be sure of the long-term durability of the ArtBrick<sup>™</sup> system to further enhance the life of the External Wall Insulation finish.











WB Design Renders were appointed by a private homeowner to deliver an ArtBrick<sup>™</sup> finish to a 1920s solid wall property that was rendered soon after construction to prevent damp passing through walls.

Due to the property having solid walls (one brick thick), the client wanted insulation, but also wanted the house to look how it once would have prior to rendering.

Solid brick wall construction became the backbone of building in the Georgian and Victorian eras, although stone was often used instead in areas where there were good local quarries.

The cavity wall, one of the key features of contemporary masonry construction didn't appear until late Victorian times, and didn't become commonplace until the 1920s.













When we showed the client the option of ArtBrick<sup>™</sup> they were overwhelmed with the prospect of what could be achieved whilst having EWI installed, but not having to compromise with finish and detail.

- A damp proof membrane (DPM) was installed which was only possible due to the versatility of ArtBrick™
- The stone feature cills and stone plinth were recreated to remain in keeping with original traits.
- ArtBrick<sup>™</sup> Traditional was used to create a real authentic look.











Westdale Services were appointed by Durham Council to deliver a Structherm EWI/ Regeneration scheme to around 300 dilapidated Victorian Terraces, in a very deprived area which suffered from nearly one in five empty homes.

ArtBrick<sup>™</sup> worked closely with the Planning Authority to propose a scheme that was in keeping with the local vernacular, with the aim of retaining as much heritage and architectural merit as possible. As such, we proposed a Brick Render EWI specification, which exactly matched the existing imperial bricks in colour, texture and size. Other ancillary specifications were catered for, including cast iron gutters and rainwater goods.

Properties have seen their appearance dramatically rejuvenated whilst preserving their original period character, with an uptake of 99%, resulting in the regeneration of an entire community.













Improvements to public realm and public open space has complemented the regeneration of these Victorian properties, using ERDF Capital and programme funding sourcing through Durham County Council (with match-funding).

Public open space was reinstated with a mixture of soft and hard landscaping, including cobbles, dwarf wall, cast iron railings, bollards and street furniture.

- Market confidence in the area has improved significantly.
- Void property levels fell from 17% in 2010 to 7% in 2012.
- 14 long term empty properties have been brought back into use since August 2011.
- House values rose from an average £37k in 2010 to £60k in 2014.











Durham County covers a large geographical area and is full of small, remote villages that do not have mains gas and are 'hard to treat' with regards to thermal insulation. In addition, many of the villages are ex-colliery communities and/or ex-limestone quarry areas with older housing built during the heyday of these industries to accommodate their workforce.

Due to a large proportion of the housing being constructed pre-1920 their walls are built without a cavity, i.e. solid. This, by today's standard, is a very inefficient construction method and must be remedied if the UK is to achieve its 2050 'Net Zero' target. The obvious solution is to insulate the properties externally, however over 100 of the dwellings are of stone construction, which are considered 'planning sensitive'.

The combination of these attributes thrusts high percentage of the local population into fuel poverty and reduced living standards through condensation, mould growth and cold.













To exacerbate the issue further, the vast majority of this housing is of private tenure following the sale of the properties at discounted priced when the collieries were closed.

Due to limited floor space inside the dwellings, risk of cold bridging and sheer expense, Internal Wall Insulation was not an option, leaving no known products on the market suitable for treating the housing.

- Revolutionary stone effect finish applied to 100+ houses
- Achieved ERDF 'Innovation' funding for DCC.
- Revived and allowed an otherwise impossible project to go ahead
- Complete restoration of the original character of the buildings.
- Finishes were tweaked on site to allow multiple differing finishes without delaying the contract
- Far less expensive, quicker to apply and less disturbance to occupants than Internal Wall Insulation.









# **CASE STUDY** EFFLORESCENCE TREATMENT



# **PROJECT BACKGROUND**

Westdale Services were appointed by a private homeowner whose property was suffering the effects of efflorescence. Brick Effect Render that is applied during difficult or wrong conditions can result in a finish that is totally unintended and destructive to the colours of the products.

Efflorescence (or more affectionately known as 'Lime Bloom') is a fine, white powdery deposit of water-soluble salts left on the surface of masonry as the water within evaporates. These deposits tend to appear usually a month after the building is constructed, and leaving the property looking unsightly.

The property in question had External Wall Insulation (EWI) installed in January 2014, but within days the applied render showed signs of efflorescence.

It got so severe that the homeowners were desperate to hide the appearance of their property from friends and neighbours.













However, ArtBrick<sup>™</sup> was applied as a remedy to the problem, and to date there have been so signs of efflorescence.

With a proven history, ArtBrick<sup>™</sup> is absorbed by background materials rather than a surface coating, and preserves it's hue for a lifetime.

- The homeowners are now ecstatic with the appearance and thermal efficiency of their home
- To date, ArtBrick<sup>™</sup> has been used on over 5000 efflorescence free properties to authentically reproduce the appearance, shading and hue of real brickwork.





