EXTERNAL WALL INSULATION IS THE SIMPLEST AND EASIEST WAY OF THERMALLY UPGRADING HOMES AND BUILDINGS WITHOUT MASSIVE DISRUPTION

enewall
powerwall renders & aggregates

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External Wall Insulation

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THERMAL UPGRADE FOR HOMES & BUILDINGS, MADE EASY

Enewall's External Wall Insulation Systems bring together the company's expertise in developing easy to apply, advanced renders combined with leading makes and types of high quality insulation to conserve energy and stem heat loss.

Enewall offer a complete package to clients from design stages to the finalisation of the project. This includes:-

- An individual specification proposal covering all types of insulants and other variable components, tailored to satisfy the building's requirements
- Detailed drawings providing solutions for windows and eaves etc
- Calculation of existing and proposed U-values and subsequent condensation risk analysis
- Advice on wind loading and fixing design requirements for the system
- Advice on choice of textures and colours on our wide range of available render finishes
- The availability of our technical team for any other technical aspect not outlined
- Site advisory personnel to carry out checks and respond to site problems, during and after the project

Enewall is part of the EneGroup of companies which consists of Enewall which provides External Wall Insulation, renders, aggregates and adhesives. Enevis which offers a wide range of renewable energy technologies and engineering services and Enemetric, a company that specialises in volumetric construction.

part of the enegroup

The dramatic transformation of the appearance of properties alongside other initiatives can give residents a renewed sense of pride and help as part of the wider regeneration of local communities.

By eradicating problems of damp, condensation and mould, External Wall Insulation can significantly improve the lifestyle of residents, offering a warmer and more comfortable place to live.

Our systems increase the comfort levels, as well as totally transforming the appearance of the built environment.

Our three individual systems offer a complete solution for any type of building, ranging from low rise to high rise, with a wide range of finishes including renders, brick slips, modern acrylic coatings and cladding which not only reduce heat loss but also deliver all of the following advantages;

- Green Deal & ECO compliant
- Reduced CO2 emissions
- Stops condensation
- Helps prevent mould and fungal growth
- Increases thermal efficiency
- Stops draughts
- Lowers heating cost
- Improved aesthetics with a range of finishes
- No reduction in interior floor space
- Healthier building fabric
- Insurance backed warranties available
- Applied externally, minimising disruption to the occupants
- Meets or exceeds thermal regulations
- A 60 year guarantee when used with Enewall BBA approved render

Helping to meet Green Deal & ECO Standards

The Green Deal is an initiative to reduce carbon emissions cost effectively by improving the energy efficiency of properties, including homes and businesses. Over half of the UK's 26 million homes are insufficiently insulated: the Green Deal sets out to tackle this problem.

The Energy Company Obligation (ECO) is a new programme that is designed to reduce Britain's energy consumption by funding home improvements worth around £1.3 billion every year. ECO funding is delivered to customers either directly from the supplier or by organisations working together, which have made special arrangements, such as Green Deal Providers.

The Green Deal and ECO initiatives provide assistance towards energy saving methods including external walls which are the single most significant source of unused energy and can easily be improved to provide thermal performance benefits.

One of the qualifiers for ECO funding for a project is the OFGEM requirement that a 25 year guarantee is provided for external wall insulation. Enewall External Wall Insulation Systems can be covered by a 25 year insurance backed warranty in addition to the product and installer guarantee, all work completed on low and high rise domestic properties to commercial buildings.

Subject to acceptance by the insurance company, our clients then get the protection of an insurance based scheme, providing them with peace of mind for not only the product but also the workmanship carried out on their home or building.

Training

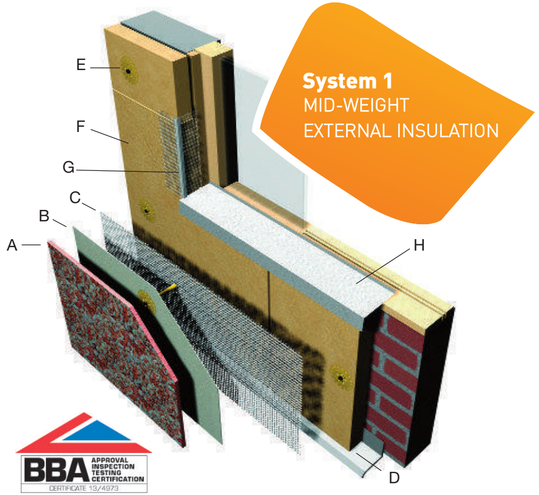
Training is available at our academy offering comprehensive training courses on External Wall Insulation as well as RIBA approved CPDs. For further information on the courses available, please contact our Training Manager on 01698 373 305.

Thermal upgrade for homes & buildings, made easy

External Wall Insulation is the simplest and easiest way of thermally upgrading homes and buildings without massive disruption as all works can be carried out whilst the buildings are occupied.

Our three individual systems offer a complete solution for any type of building, ranging from low rise to high rise, with a wide range of finishes including renders, brick slips, modern acrylic coatings and cladding.

as easy as 123



System 1
MID-WEIGHT
EXTERNAL INSULATION

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 13/4973

Enewall's System 1 is a mid-weight insulation system, predominantly used with a Dry-Dash Finish. This system can be used in both the refurbishment of existing buildings or in new build projects for increased thermal efficiency.

The system can be applied to a wide variety of different building substrates and building systems.

- A - Enewall External Render Finish
- B - Enewall Adhesive Coat
- C - Enewall Glass Mesh
- D – Enewall Bellcast Bead
- E - Enewall Mechanical Fixing
- F - Enewall Insulation
- G - Enewall Corner Bead
- H - Enewall Oversill

Render Carrier

Enewall reinforcement mesh is an alkali resisting glass fibre mesh, which is embedded in a 3mm coat of Enewall adhesive applied over the flat and level installed insulation boards. The reinforcing mesh shall be continuous at corners and reveals and be overlapped not less than 100mm at the mesh edges. Strips of mesh 400mm x 200mm are used for diagonal reinforcing of the corners of door and window openings. A heavy duty armour mesh can be used in areas requiring a higher impact resistance e.g. ground floor levels and refuse areas.

Mechanical Fixing

The size and type of fixing is determined by pull out test results and system wind loading requirements. Hole sizes to suit fixings, should be drilled through the system and into the substrate/masonry at an average rate of 6 per square metre, and the fixings installed. Areas unsupported by fixings to the standard pattern, i.e. adjacent to windows or doors, must have additional fixings. These should be fixed using insulation fasteners to the approved fixing pattern.

External Corners

External corners are formed using Enewall base coat or Enewall angle beads depending on requirements.

Eaves

At the top of the walls the system is protected by an adequate overhang of the eaves. If this overhang is inadequate, a verge trim should be installed.

Silicone Mastic

A 5-6mm bead of Enewall approved silicone mastic is applied prior to the application of finish render coat where the system meets window and door surrounds, sills, vents and all other areas where the render system comes into contact with differing surfaces.

Render Movement Joints

Render movement joints are to be positioned to suit the features of the building normally at 7 metre centres maximum. The movement joints are fixed by embedding them with the first coat on the surface of the insulation.

Render Stop Beads

Enewall render stop beads can be used at the edges of render work, reveals and where a change of render colour or finish is required. Stop beads are powder coated galvanised steel, or stainless steel.

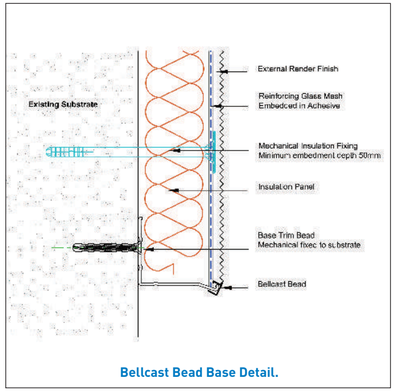
Rendering

In accordance with the recommendations of Enewall an adhesive coat with reinforcing mesh is applied first with care being taken to achieve complete covering of the mesh, first floor base trims and all other beads, the system is then finished with a Enewall Dry Dash coat. Reveals should receive one coat of smooth band render of 8 to 10 mm.

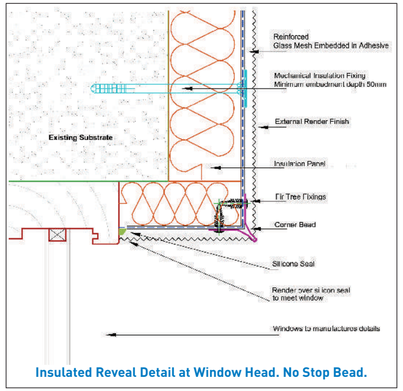
* Ensure project survey is carried out by Enewall and a bespoke specification is supplied before the application of any systems or products.

10 GUARANTEE

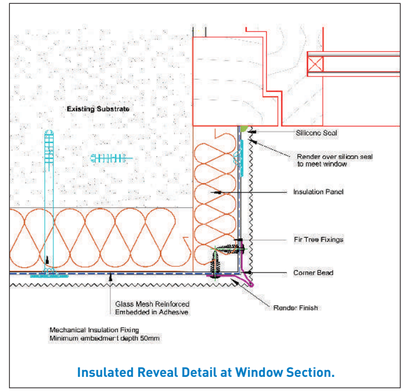
TYPICAL SYSTEM 1 DETAILS



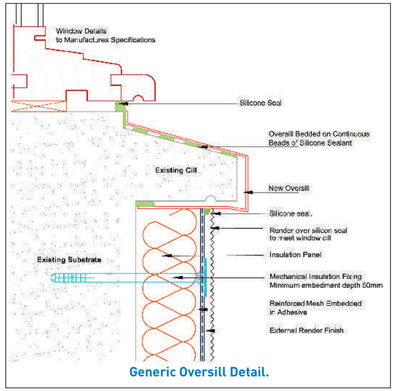
Bellcast Bead Base Detail.



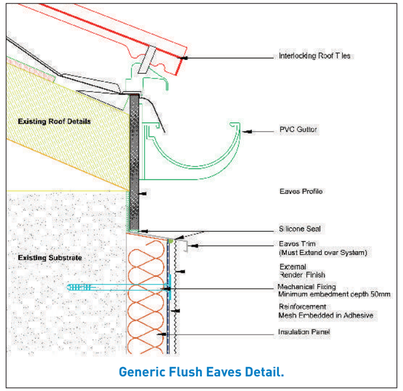
Insulated Reveal Detail at Window Head. No Stop Bead.



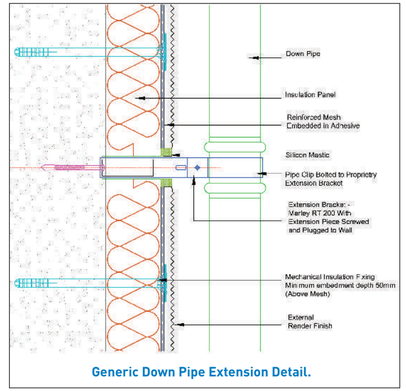
Insulated Reveal Detail at Window Section.



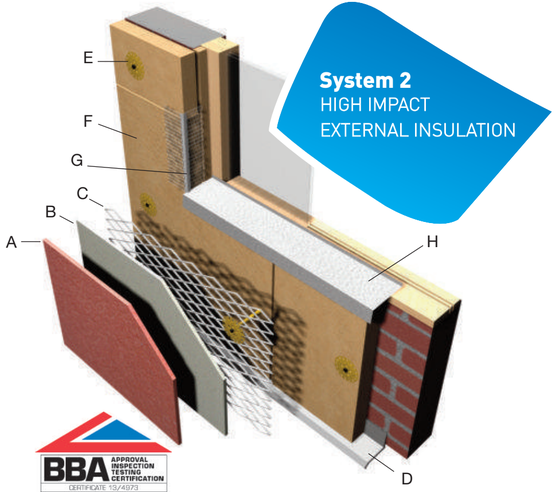
Generic Oversill Detail.



Generic Flush Eaves Detail.



Generic Down Pipe Extension Detail.



System 2
HIGH IMPACT
EXTERNAL INSULATION

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 15/4973

Enewall's System 2 is a heavy weight insulation system designed for use in areas of high impact. The system can be completed using a wide range of finishes from traditional wet cast render to modern acrylic based coatings.

The system can be used on all types of substrate.

A – Enewall External Render Finish
B – Enewall Base Coat
C - Stainless Steel Reinforcement Lath
D – Enewall Bellcast Bead
E - Enewall Mechanical Fixing
F - Enewall Insulation
G - Enewall Corner Bead
H - Enewall Oversill

Reinforcement Mesh

Stainless Steel Diamond Mesh Pattern supplied in sheets.

Stainless Steel Lath should be fixed using Enewall approved fixings to Enewall standard fixing pattern. Sheets of lath must be lapped minimum 70mm on all edges.

Mechanical Fixing

The size and type of fixing is determined by pull out test results and system wind loading requirements. Hole sizes to suit fixings, should be drilled through the system and into the substrate at an average rate of 8 per square metre, and the fixings installed. Areas unsupported by fixings to the standard pattern, i.e. adjacent to windows or doors, must have additional fixings. These should be fixed using insulation fasteners to the approved fixing pattern.

External Corners

External corners are formed using Enewall Base Coat and / or external angle beads, available in powder coated galvanised steel, stainless steel or aluminium.

Silicone Mastic

A 5-10mm bead of Enewall approved silicone mastic is applied prior to the application of finish render coat where the system meets window and door surrounds sills, vents and all other areas where the render system comes into contact with differing surfaces.

Render Beads

Movement Joints are positioned such that large elevations of render are broken down into smaller panels at 7 metre centres maximum along the building. These joints can sometimes be positioned in conjunction with existing building features to minimise their visual appearance. Render stop beads are positioned at the edges of render panels and at changes in colour of the render finish. All beads are available in Powder Coated Galvanised Steel, Stainless Steel and Aluminium.

Rendering

When all of the preceding applications are complete, Enewall Base Coat is applied to a total thickness of 8-10mm thick. The chosen final render finish is now applied to the project in accordance with the specification. Total render thickness of the system will depend on the final finish specification; consult Enewall Sales Department for the range of finishes available.

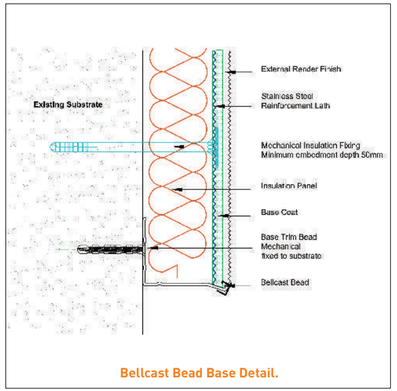
Eaves

At the top of the walls the system is protected by an adequate overhang of the eaves. If this overhang is inadequate, a verge trim should be installed.

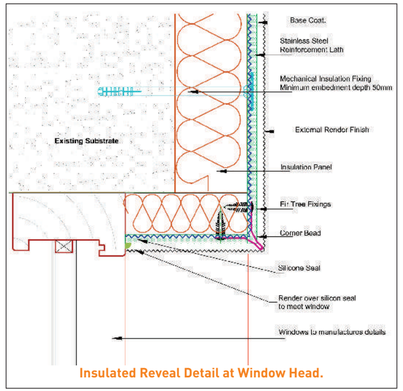
60 year GUARANTEE

2

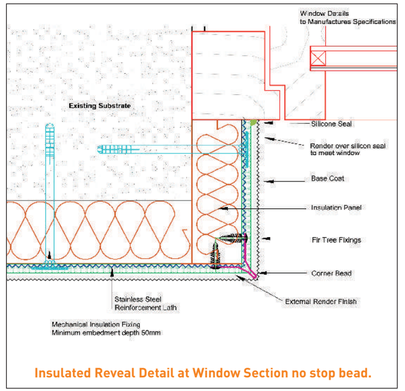
TYPICAL SYSTEM 2 DETAILS



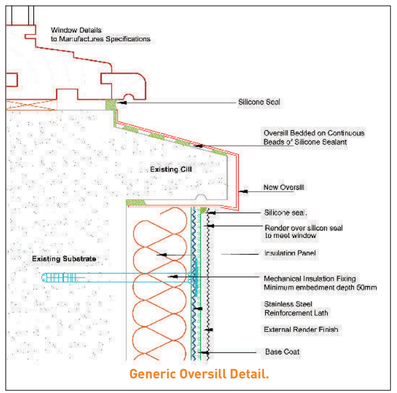
Bellcast Bead Base Detail.



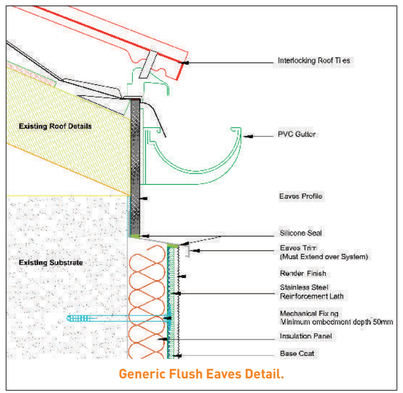
Insulated Reveal Detail at Window Head.



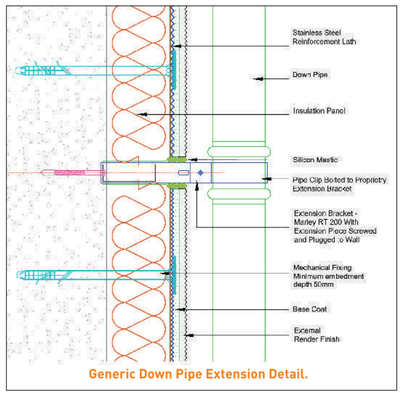
Insulated Reveal Detail at Window Section no stop bead.



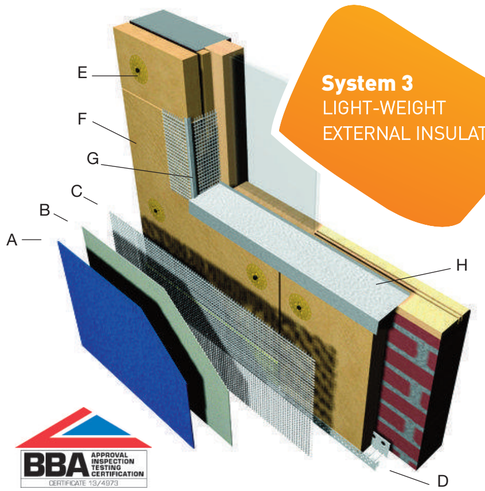
Generic Oversill Detail.



Generic Flush Eaves Detail.



Generic Down Pipe Extension Detail.



System 3
LIGHT-WEIGHT
EXTERNAL INSULATION

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 15/4973

Enewall's System 3 is a light weight insulation system designed for use with modern acrylic renders. This system can be applied to virtually any substrate from masonry to calcium silicate board due to its extremely light weight.

The use of modern acrylics means a vast range of colours are available for finishes.

A – Enewall External Render Finish
B – Enewall Adhesive Coat
C - Enewall Glass Mesh
D – Enewall Starter Track
E - Enewall Mechanical Fixing
F - Enewall Insulation
G - Enewall Mesh Angle Bead
H - Enewall Oversill

Reinforcement Mesh

Enewall reinforcement mesh is an alkali resisting glass fibre mesh, which is installed plumb and level embedded in a 3mm coat of Enewall adhesive applied over the installed insulation boards. The reinforcing mesh shall be continuous at corners and reveals and be overlapped not less than 100mm at the mesh edges. Strips of mesh 400mm x 200mm are used for diagonal reinforcing of the corners of door and window openings. No joints within 200mm of corners.

Mechanical Fixing

System 3 is fixed using a combination of adhesive and mechanical fixings. All mechanical fixings are inserted prior to application of adhesive coat and reinforcing mesh.

External Corners

External corners are formed using Enewall mesh angled beads.

Silicone Mastic

A 4-5mm bead of Enewall approved silicone mastic is applied prior to the application of finish render coat where the system meets window and door surrounds, sills, vents and all other areas where the render system comes into contact with differing surfaces. An alternate sealant can be used by means of Enewall Pre-Compressed sealant tape. For further information consult Enewall Technical Department on 01698 373 305.

Render Movement Joints

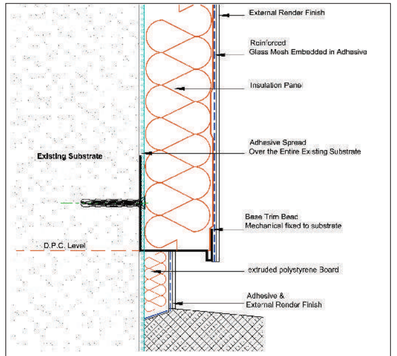
Render movement joints may be required in certain circumstances, please consult the Enewall Technical Department.

Rendering

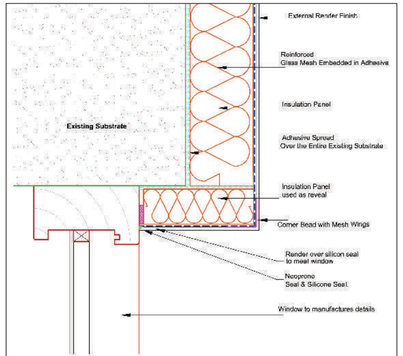
Rendering is in accordance with the recommendations of Enewall Systems Ltd. Using Enewall Sand Finish this is applied by trowel or spray and is available in a wide range of colours. A continuous application is used, always to a wet edge. The finishes must not be applied in damp, wet or frosty conditions, or in direct sunlight.

60 year GUARANTEE

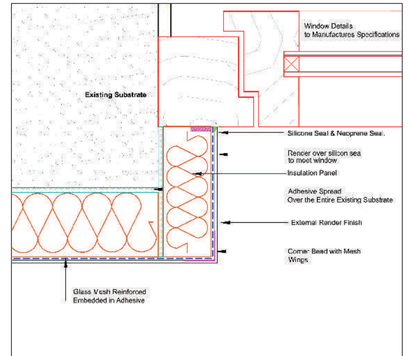
TYPICAL SYSTEM 3 DETAILS



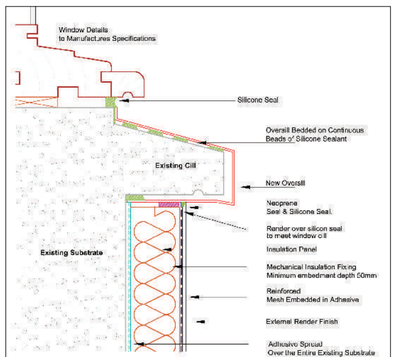
Base Trim Bead Detail and Below DPC Level.



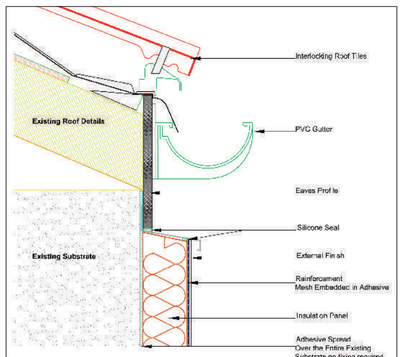
Insulated Reveal Detail at Window Head.



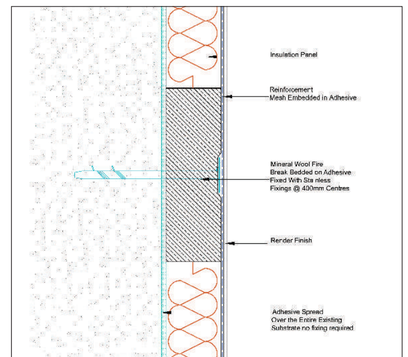
Insulated Reveal Detail at Window Section no stop bead.



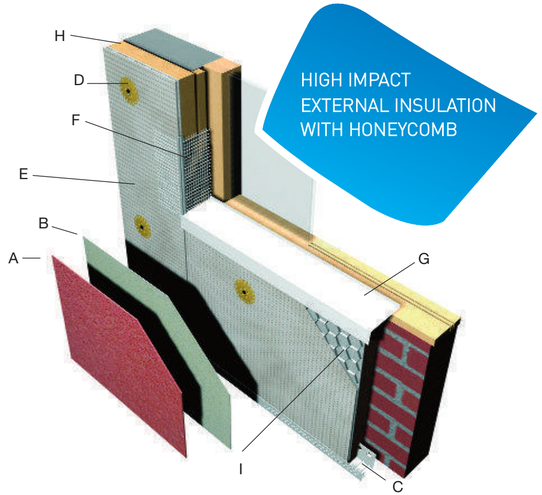
Generic Oversill Detail no stop bead.



Generic Flush Eaves Detail.



Generic Down Fire Break Detail.



HIGH IMPACT EXTERNAL INSULATION WITH HONEYCOMB

Using Enewall's unique Honeycomb panel individually bonded to the insulation board we have been able to create an ultra lightweight insulation system known as "System 4". The system delivers an ultra high impact resistance. Soft and hard body impact tests show that the structural performance and integrity of the system are adequate for Category 'B' applications (as defined by Table 2 of BS 8200).

As a result of the lightweight nature of the product virtually any finish can be applied to the system.

A – Enewall External Render Finish
B – Enewall Adhesive Coat
C - Enewall Starter Track
D – Enewall Mechanical Fixing
E - Enewall Glass Mesh
F - Enewall Mesh Angle Bead
G - Enewall Oversill
H - Enewall Insulation
I - Honeycomb Panel

Reinforcement Mesh

Enewall reinforcement mesh is an alkali resisting glass fibre mesh, which is embedded in a 3mm coat of Enewall adhesive applied over the installed insulation boards. The reinforcing mesh shall be continuous at corners and reveals and be overlapped not less than 100mm at the mesh edges. Strips of mesh 400mm x 200mm are used for diagonal reinforcing of the corners of door and window openings.

Mechanical Fixings

System 4 is fixed using a combination of adhesive and mechanical fixings. All mechanical fixings are inserted prior to installation of reinforcing mesh.

External Corners

External corners are formed using Enewall mesh angled beads.

Silicone Mastic

A 5-6mm bead of Enewall approved silicone mastic is applied prior to the application of finish render coat where the system meets window and door surrounds, sills, vents and all other areas where the render system comes into contact with differing surfaces. An alternate sealant can be used by means of Enewall Pre-Compressed sealant tape.

Render Movement Joints

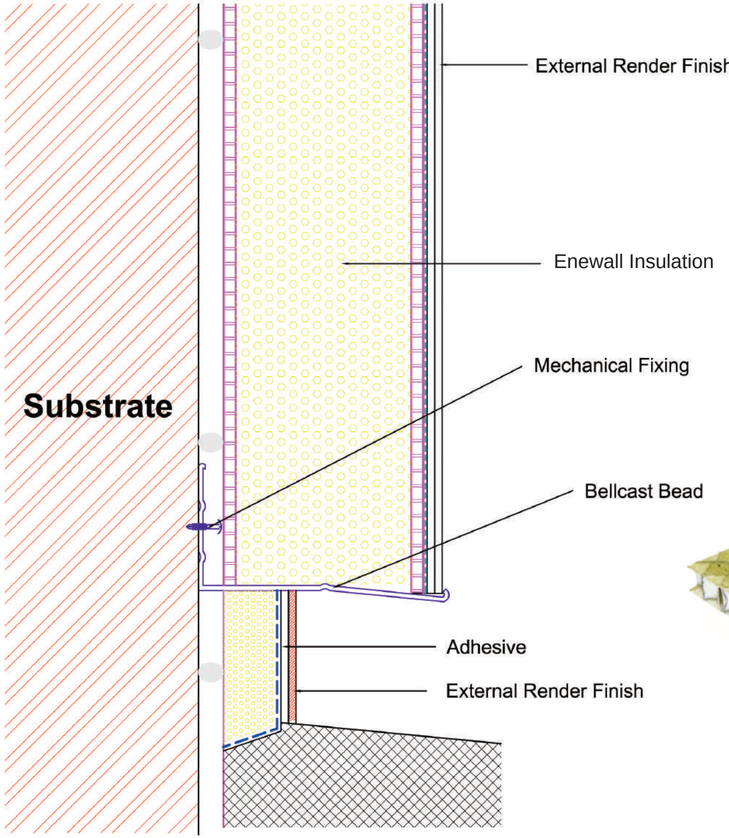
Render movement joints may be required in certain circumstances.

Rendering

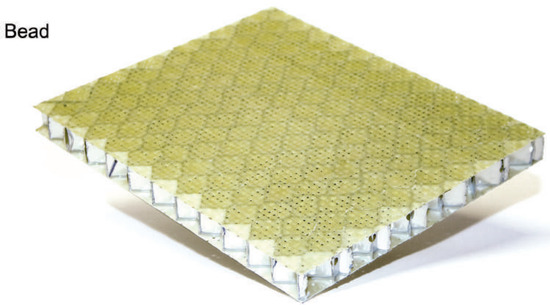
A wide range of finishes can be applied.

Installation

All Enewall insulation boards can either be installed using an adhesive fixing in conjunction with a mechanical fix or a mechanical fixing only. These will vary depending on substrate and system requirements. Installation of the insulation boards will begin from the base level upwards and follow a break bond pattern. Information on application, fixing pattern and rates will be provided in our detailed specification issued following site survey.



The Honeycomb panel is ultra-lightweight with exceptional tensile and flexural strength achieving unrivalled technical performance.



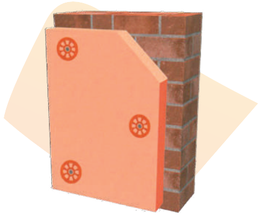
There are four main types of insulation:

Expanded Polystyrene (EPS & Graphite EPS)

One of the primarily used and most cost effective solutions in External Wall Insulation. With good insulation performance, combined with the benefit of being lightweight and easy to work with.

Mineral Fibre (Rock Fibre)

Offers good insulation performance at a mid-range cost and is the best choice where fire resistance is top of the list of requirements.



Phenolic

Phenolic insulation normally comes at a higher cost than EPS or Mineral Fibre but gives a very high insulation performance, typically requiring in the region of 60% thickness of comparable insulations.

Polyisocyanurate (PIR)

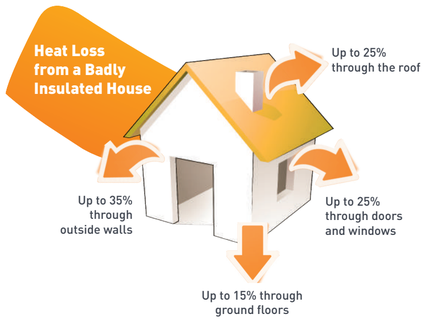
Polyisocyanurate (PIR) insulation is highly effective, lightweight and has the ability to bond to most materials. PIR insulation offers excellent thermal conductivity and high strength to weight ratio.

Our Technical Team are able to give advice on the most suitable type of insulation for your building.

Heat Loss

U-value is a measure of heat loss in a building element such as a wall, floor or roof and it measures how well parts of a building transfer heat.

This means that the higher the U-value the worse the thermal performance of the building envelope. A low U-value usually indicates high levels of insulation, leading to reduced energy bills. They are useful as it is a way of predicting the composite behaviour of an entire building element rather than relying on the properties of individual materials. The thicker the insulation you can add to your building, the better the wall, floor or roof will perform and more energy is saved.



Enewall are able to provide U-value calculations for any specific project, call 01698 373 305 for more information or alternatively visit our website www.enewall.co.uk to use our online U-value calculator.

Preparation

The existing surface may be jet washed if required to remove heavy particles, followed by a fungicidal treatment using Enewall Fungicidal Wash prior to brushing down with a heavy gauge brush to remove any fungal growth.

Base trims and any trims to first and subsequent floor levels should be fixed at 400mm centres. Where the substrate is un-even the trim can be embedded in Enewalls basecoat, to ensure all beads and trims are level and in line.

Structural movement joints in the wall must be carried through the system by the use of the Enewall full system expansion joint, fixed at 400mm centres, using 60mm hammer screws.

Site Application

Application of the External Wall Insulation System should be carried out by approved contractors, in accordance with the specification.

Finishes on External Wall Insulation

From brick slip to render to stone cladding Enewall can supply a huge variety of finishes depending on the specification required, giving you a one stop shop for the entire build.

The choice of render colours, textures and finishes offered by External Wall Insulation makes it suitable for all types of projects, from a new build with a striking, contemporary façade to a refurbishment where the original design of the building needs to be skilfully replicated in order to meet planning restrictions.

Site Survey & Preliminary Works

A pre-installation survey of the property should be carried out to determine all site conditions and restrictions. Pullout tests should be carried out to determine the correct type of wall fixing suitable for the structure and exposure conditions. The building should be examined for the following:

- Suitability of substrate
- Detailing around windows, doors and eaves
- Damp course level
- Exact detailing position of movement joints
- Areas where flexible sealants must be used
- Ventilation plates, as per architects specification

Surfaces should be sound, free from loose material and reasonably flat. Severe irregularities can be levelled using the Enewall basecoat render, if required. It is recommended that any external plumbing be removed and alterations made to underground drainage to accommodate its repositioning on the face of the system.

Before installation work commences, all roof guttering should be in place, and temporary outflow pipes fitted to shed rainwater clear of the wall surface and scaffolding.

'We congratulate Enewall on the award of these BBA Certificates. External wall insulation has received a boost from the Green Deal and ECO and with BBA Approval Enewall is now well placed to benefit from that.'

Alan Thomas,
Sales and Communications Director BBA

Enewall can provide a specification tailored for each specific project.

Fire Barriers

Where horizontal fire barriers are required in the system this will be advised by a member of our technical team. This can be achieved by the use of Enewall's High Density mineral wool board.

Render Carriers

Our system will incorporate the following depending on the application requirements and chosen finishes:-

- Alkaline resistant glass mesh
- Armour reinforcement mesh
- Stainless steel lath

Accessories

All accessories and trims are manufactured to the highest standards. Generally powder coated galvanised steel or stainless steel is recommended although aluminium is used where requested. Special items, such as pipe brackets are manufactured to suit requirements. A wide range of insulants is available for use on our systems including PIR, EPS, Mineral Wool and Phenolic, providing a choice and versatility to suit all specifications.

Additional Features

A wide range of features can be formed using additional layers of insulation, or specifically designed features for the project can be manufactured and supplied in a selection of different materials.