

Baumit  
Insulation

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Baumit External Wall Insulation

# Your guide to Baumit EWI systems



## What is External Wall Insulation?

An external wall insulation (EWI) system consists of tested components for insulating the exterior of buildings. It provides an excellent long-term investment in your house. You will benefit immediately from a cosier home and can reduce your energy costs from the very first hour.

Insulating boards are placed on the external surface of all the vertical walls of a building and then covered with a protective, decorative render. This protects the building from fluctuating weather conditions, reduces heat losses from inside the building and will prevent external temperature changes from affecting the interior climate. EWI keeps homes warm in winter and cool in summer, ensuring a home with a pleasant atmosphere by eliminating sharp and high changes in indoor temperature. EWI will also reduce energy consumption in terms of energy consumed for heating and cooling.



### Suitable for:

- Old or unconventional buildings that don't have cavity walls.
- New builds and extensions looking to achieve a specific energy efficiency.



## Why use EWI?

Our external wall insulation systems can help to reduce your energy bills and save you money, while at the same time protecting the basic structure of your building and creating a comfortable internal environment.

The main reason for choosing an EWI solution is to achieve higher thermally insulating results by protecting the walls from changes in outdoor temperature, taking advantage of the thermal capacity of the existing walls and more effectively avoiding thermal bridges. Therefore, with EWI, the maximum possible reduction in heating or air-conditioning costs can be achieved.

Another reason for opting for EWI is to enhance renovations. If renovating the exterior of a building, opting for an EWI solution provides great flexibility for architectural and design choices.



### Advantages over internal wall insulation

With external wall insulation there will be no reduction of floor space in the house from the installation of the thermal insulation. In addition, there will be no need to remove any objects found on the walls such as built in storage, wardrobes and radiators for example, resulting in minimal disruption in your living space during building works.



## Benefits of EWI

### **Consistent Room temperatures**

Baunit EWI systems work in a similar way to a coat, they keep the heat inside. With external wall insulation, warmth is retained in the internal solid walls and not released to the outside. The walls then radiate this stored heat into the room.

On the flip-side on warmer days the EWI system will deflect the heat to keep the inside rooms cool.

### **Reduce Drafts**

To avoid draughty rooms the difference between the air and surface temperature of a wall should be no more than 3°C. Anything greater than 3°C will lead to drafts caused by convection. The installation of thermal insulation can reduce this effect without the need for additional heating, meaning you'll be less tempted to turn up the thermostat.

### **Stabilise Air humidity**

External wall insulation helps to balance the indoor climate which in turn regulates air humidity. If humidity drops too low it causes the nose and throat to dry out and can also lead to dry eyes. Additionally, wooden floors and furniture can dry out and encourage more dust, allowing bacteria and viruses to remain suspended in the air for longer, increasing the risk of bad health.

If humidity is too high, the air can become unable to adequately absorb moisture dispersed in the room leading to condensation and the formation of mould, especially during cold weather.



## Prevent Mould

The combination of effective thermal insulation and the right choice in plaster system, such as Baumit Klima internal plasters which are lime based with climate-regulating and mould preventing properties, will allow you to create a healthy living environment.

## Save Energy

You can reduce your energy costs by 50% by making thermal improvements to your house - minimise heating costs during the winter months and reduce air conditioning during the summer months and save all year round. And if you are building a new home, Baumit systems are suitable for building to Passive House standard or to achieve a zero energy home.

## Lower Construction Costs

An EWI system makes it possible to slim down the thickness of the masonry, reducing brick thickness and hence construction costs. You will also save in the long-term as an EWI system protects the masonry like a reinforcing layer, providing protection from temperature fluctuations, weathering and driving rain. Additionally, EWI requires little maintenance overtime.

## A complete system

Baumit offers high-quality EWI systems consisting of efficient insulating materials, proven adhesives and innovative topcoats. External wall insulation systems protect your walls from external influences and ensure a stress-free, dry wall structure. But above all, good insulation keeps the inside temperature consistent.



# Baumit EWI Systems

## Baumit StarSystem EPS

### The classic solution

- BBA approved system
- Flexibility and protection
- Offers a broad range of solutions

Baumit StarSystem EPS provides great flexibility as well as good impact resistance and combines all Baumit's experience as a pioneer in External Wall Insulation systems.

Baumit StarSystem EPS core component is the grey EPS façade insulation board, Baumit StarTherm which is made from expanded polystyrene. It is highly vapour permeable and has excellent insulating properties. Baumit StarContact white adhesive and reinforcing mortar ensures that the façade remains adhered to the brick/blockwork no matter what the temperature fluctuations, wind speeds or other environmental challenges may be. It is elastic and flexible and so, over time, it stretches and flexes as required and offers excellent resistance to objects that impact the surface. Finished with a coat of Baumit StarTop or SilikonTop thin coat render that can be tinted in a large choice of Baumit Life colours.

## System build up



- 1. Baumit StarTop/SilikonTop**  
Easy to apply topcoat render - available in 888 colours
- 2. PremiumPrimer**  
Ready-to-use superior quality primer
- 3. Baumit StarContact White**  
Vapour permeable adhesive and basecoat reinforcing mortar
- 4. Baumit StarTex**  
High performance reinforcing mesh
- 5. Baumit STR U 2G\***  
Screwed anchor fixing  
\*Depending on substrate
- 6. Baumit StarTherm EPS**  
Grey EPS façade insulation board
- 7. Baumit StarContact White**  
Vapour permeable adhesive and basecoat reinforcing mortar.

## Baumit StarSystem Mineral

### The all-rounder

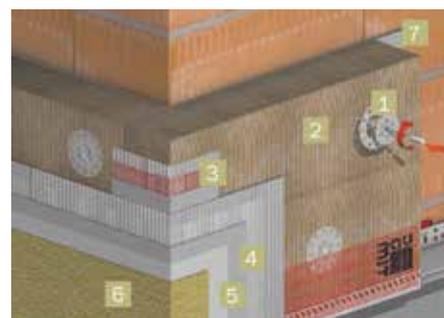
- BBA approved system
- Fire resistant
- Highly permeable

Baumit StarSystem Mineral is a mineral wool external wall insulation system suitable for all building classes.

Mineral wool boards when used as a thermal insulation layer are covered with a reinforcing layer consisting of a basecoat and fibreglass mesh. The weather-resistant top coat is applied over this. The insulation board Mineral Wool EWI Slab contains no combustible components. The system stands out due to its excellent sound and fireproofing properties as well as being highly vapour permeable. It noticeably improves indoor climate.

Baumit StarSystem Mineral can be applied to all substrates. It is suitable for old and new buildings as well as for single and multiple occupancy homes, and also for commercial construction.

## System build up



- 1. Baumit StarTop/SilikonTop**  
Easy to apply topcoat render - available in 888 colours
- 2. PremiumPrimer**  
Ready-to-use superior quality primer
- 3. Baumit StarContact White**  
Vapour permeable adhesive and basecoat reinforcing mortar
- 4. Baumit StarTex**  
High performance reinforcing mesh
- 5. Baumit STR U 2G\***  
Screwed anchor fixing  
\*Depending on substrate
- 6. Baumit Mineral Wool EWI Slab**  
High grade mineral fibre insulation boards.
- 7. Baumit StarContact White**  
Vapour permeable adhesive and basecoat reinforcing mortar.

## Baumit PlinthSystem

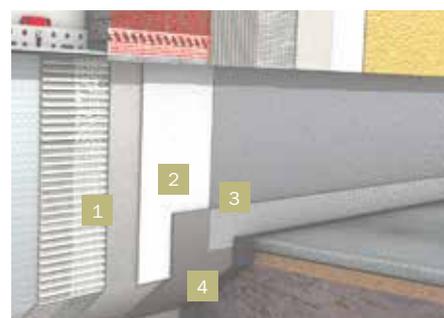
### Finishing touch

- Plinth zone reinforcement
- Resistant to mechanical stresses
- Water-repellent

The plinth and perimeter area is one of the most highly stressed areas of a building. It has to contend with rainfall, splashing and high levels of mechanical stress.

Finish your EWI system with Baumit Plinth System to provide complete weather resistant protection to your home.

## System build up



- 1. Baumit StarContact White**  
Vapour permeable adhesive and basecoat reinforcing mortar
- 2. Baumit Premium Primer**  
Superior quality primer.
- 3. Baumit MosaikTop**  
Ready-to-use, acrylic based render for external use
- 4. Baumit DS 26 Flex**  
Flexible and universal for use as a sealing layer



## Choosing a final finish

### Unlimited design possibilities

- Large range of render colours
- Wide range of individual textures
- Unique surfaces guaranteed

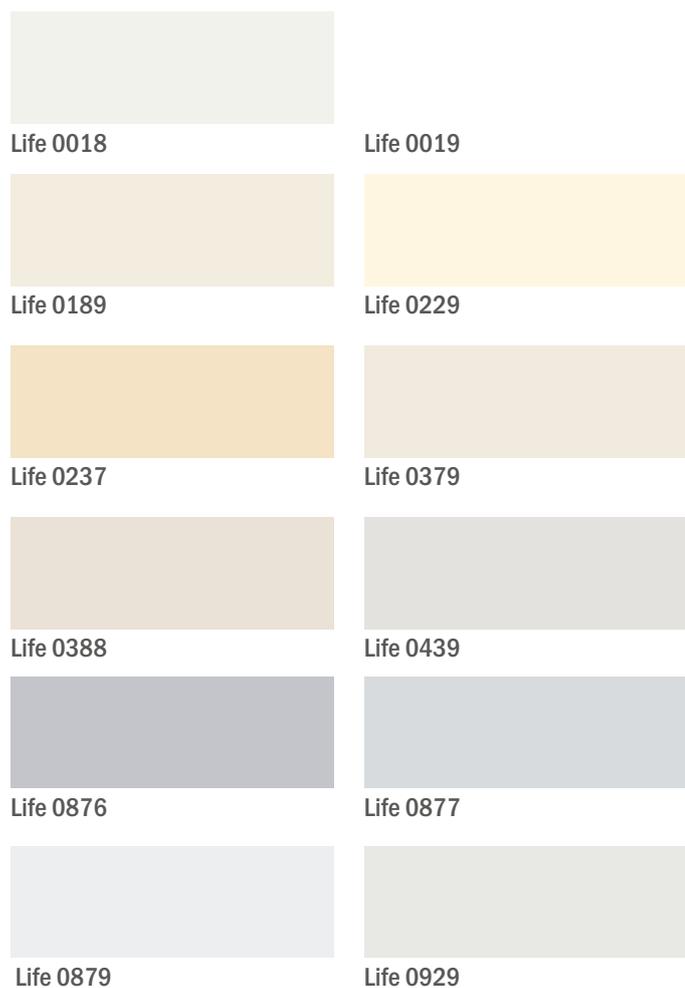
The individual appearance of a façade does not only depend on its colour but also on its texture. Baumit materials have been created to provide unlimited possibilities when it comes to both.

Whether you want a textured or smooth finish we have a range of renders to achieve the desired finish. From self cleaning render to renders specially designed for bright colours to last decades.

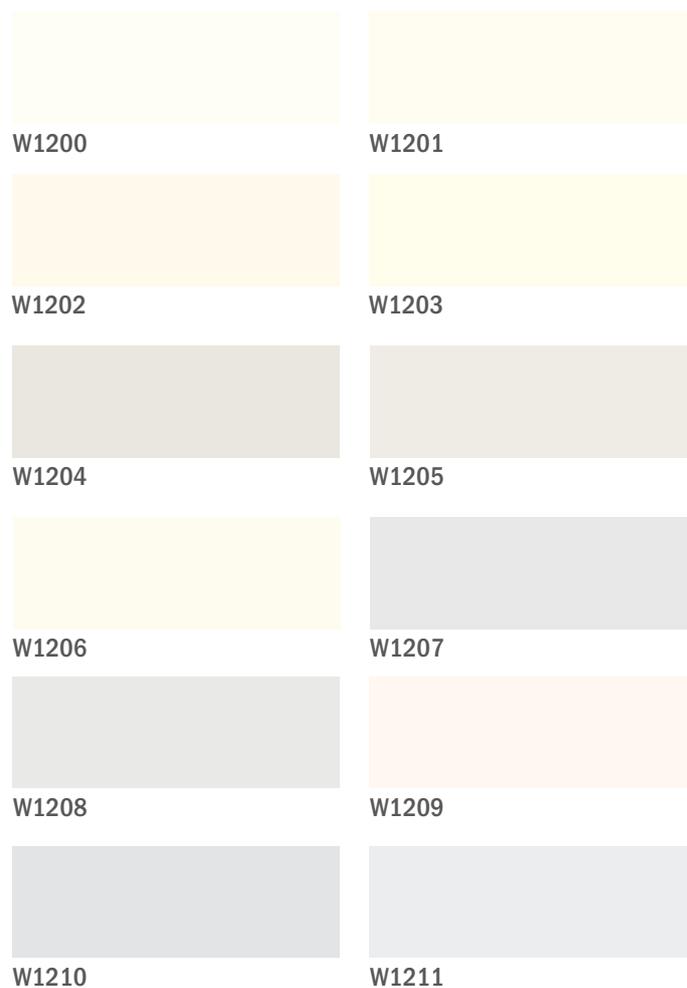
There are a total of 888 colours in the Baumit Life range. We realise that is quite a lot so have pulled together the 12 most popular render colours. White remains a popular choice but even then, white is never purely just white so we created a range of 12 shades of white as well.



## Top 12 Baumit Life Colours

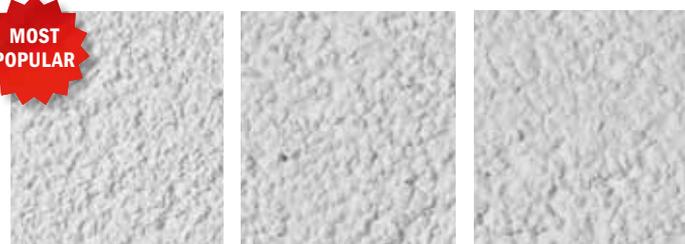


## Shades of White



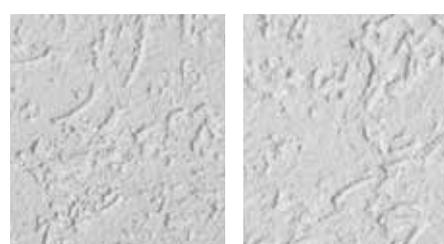
## Surfaces that provide character

### Scratched



1.5mm scratched finish    2.0mm scratched finish    3.0mm scratched finish

### Rolled



2.0mm rolled finish    3.0mm rolled finish

### Combed



## Smooth finish

You can also apply a smooth render finish to an EWI system. To achieve a perfectly smooth façade Baumit offers 3 variants of CreativTop; Vario, Pearl and Silk to achieve this and it requires a high level of technical skill.

Get in touch for advice: [baumit.co.uk](http://baumit.co.uk)





## FAQs

### Is EWI right for my property?

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#### Can I install External Wall Insulation (EWI) on a cavity filled property?

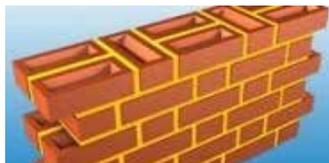
External Wall Insulation (EWI) is designed for a solid wall construction. If your house has a cavity wall you will need to seek further advice from a cavity extraction consultant for your specific needs.

#### How can I tell if I have solid walls?

If your house was built after the 1920s it is likely to have cavity walls. Older houses are more likely to have solid walls. If you can see the brickwork on the outside of the house, look at the pattern of the bricks.



If your home has cavity walls, the bricks will usually have a regular pattern like this.



If your home has solid walls, the bricks will have an alternating pattern like this.

If the brickwork has been covered, you can also tell by measuring the width of the wall. Go to a window or door on one of your external walls. If a brick wall is more than 260mm thick then it probably has a cavity; a narrower wall is probably solid. Stone walls can be thicker still but are usually solid. However, your builder will be able to advise prior to any works being agreed.

#### Can I have External Wall Insulation for a timber framed property?

Unfortunately not. Timber framed properties require a ventilated and drained cavity so external insulation would provide no benefit at all.

#### What thicknesses of insulation should I use?

The most common insulation thickness is 100mm, however a U-Value check can indicate the appropriate thickness you will require.

#### What is a U-Value?

The U-value is a measure of how quickly heat escapes through a structure to the outside and as a result also how much carbon is leaking through the walls as well

The lower the U-Value figure the better. As a guide a new, well insulated home will have a U-value of around 0.3 and a solid-wall home will generally be around 2.05 to 2.10.

### The EWI installation process

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#### Do I need planning permission?

External Wall Insulation is not classed as an extension to the building walls as you are only adding another layer and increasing the depth of the wall by around 100mm / 4 inches. However, this often means some degree of alteration to exterior fittings and fixtures and as such a Building Notice is required under L1B of the Building Regs.

In the vast majority of cases you only need to serve the Council's Building Control with a Building Notice under Building Regs L1B. The process is to send in a simple Building Notice – available online or from the Council – at least a week before work starts to inform the Building Inspector you are having work carried out and for them to come out to your property to inspect the work to make sure it complies with the Regulations.

## Building regulations

Under the Building Regs Part L1B 2010 you cannot replace or add a wall covering – apart from paint – to any solid wall without incorporating insulation to save energy and reduce heating costs. This applies to any internal wall renovation or external rendering of the wall and covers things like replacing or adding render, plaster or cladding and applies if you are working on at least 50% of an individual wall's surface area. Mistakenly some people assume it has to be 50% of the whole house before you need to insulate but it is 50% of each individual wall.

## Exceptions

If your house boundary directly abuts a public pavement or pathway then the extra depth to your home can be viewed as an encroachment onto public space and so you will need to apply for Planning Permission.

If your home is listed in an Area of Outstanding Beauty or a Conservation Area then again you must apply for Planning Permission before work is started.

## How is External Wall Insulation installed?

The system is installed in a number of steps. First, all external fittings will be removed. The insulation slabs are then attached to the wall – either with an adhesive or mechanically. Next, a render is applied to cover and protect the insulation, along with a decorative finish of your choice. Finally, all external fittings are replaced.

## Will the work be disruptive?

There will be minimal disruption as the work is carried out from outside. Scaffolding will be required for properties with wall areas higher than one storey, and drilling and mixing machines will create noise during those processes. The drilling process inevitably creates a little dust, which will be cleared away upon completion. It is wise to remove any vehicles from the drive and items close to the walls. This will also give the applicator better access for their equipment and tools. Protective film is applied to the outside of the windows during the day, this will restrict visibility from the window. The applicators will ensure that the area around the home is left clean and tidy on completion of works each day.

## Do I have to do anything before the installation?

The applicator will need access to all external walls, so they will need to get inside attached garages, lean-to sheds, conservatories etc. The insulation will only be effective if

all walls are insulated. If you have a wall on your boundary, you may like to inform your neighbours the applicators may need to go onto their property. The drilling process does create some vibration – so it would be wise to remove ornaments, particularly on external walls, for your peace of mind and safety.

## How long will it take to install?

Insulating an average size home will require around 9 – 10 days of work, spread over 3 – 4 weeks (to allow for drying time etc.) To minimise disruption, most people have their home insulated at the same time as having other work done.

## Maintenance and after care

### How durable is the insulation?

EWI systems are designed to withstand normal weathering, wear & tear and impacts. If part of the system gets damaged, repair is quite straightforward. Any areas of high traffic (bike routes, pathways, etc.) can be designed to resist high impact.

### Will I have to maintain and clean the system myself?

The insulation systems are generally maintenance free, although you may choose to wash down with soapy water every now and then as you would with any rendered wall. The insulated walls should not be jet-washed or power-washed at any time.

### What decorative finishes are available?

Baumit has a variety of mineral and organic topcoat renders suitable for use with all our EWI systems, each available in a huge range of colours. The installers can discuss this in full detail with you before work begins.

### How long will the External Wall Insulation last?

Baumit systems are BBA tested for life-expectancy and achieve a rating in excess of 30 years.

### Is the system guaranteed?

The system is covered by a 10 year Guarantee as long as you have used a Baumit Approved Installer.



## Natural & healthy interiors

It's estimated we spend at least 90% of our lives indoors, therefore the creation of interiors that promote occupier comfort and well-being ought to be of the highest priority. Baumit's healthy living Klima product range helps stabilise the humidity of indoor air, quickly absorbing excessive moisture, storing it and, if necessary, quickly releasing it back.

### Baumit healthy living

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- Durable and beautiful finishes
- Easy and precise application
- Individual and creative style
- Modern and decorative finishes
- Vapour storage and release
- Ready to use products
- For healthy living environments

High quality for well-being. Healthy living starts with the right choice of building materials. The most important thing is a beneficial indoor climate. Optimum, stable humidity and room temperature make a significant contribution to well-being. Baumit Healthy Living products are proven to promote these properties.

It's estimated we spend at least 90% of our lives indoors, therefore the creation of interiors that promote occupier comfort and well-being ought to be of the highest priority. Baumit's healthy living Klima product range helps stabilise the humidity of indoor air, quickly absorbing excessive moisture, storing it and, if necessary, quickly releasing it back.





# Baumit Healthy Living

## *Natural & healthy interior environments*

### Healthy living

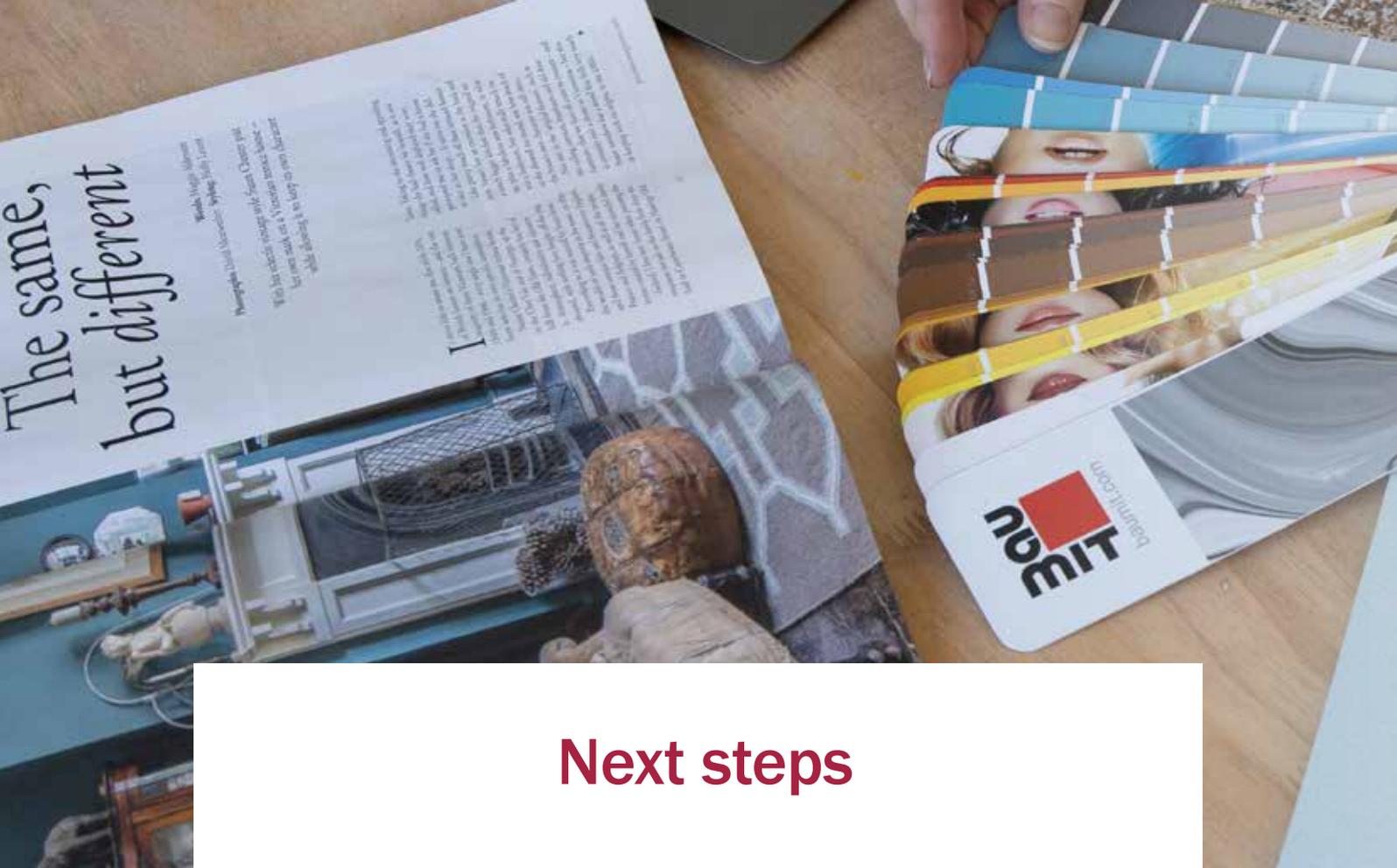
With 90% of our time spent indoors, the air quality inside our homes is important for maintaining good health. Achieving an optimum, stable humidity and room temperature makes a significant contribution to well-being, so it is essential to consider the quality and function of the construction materials used.

### Klima Systems

Baumit Klima products stabilise the moisture content of our indoor air. They quickly absorb excess moisture, store it and, if necessary, quickly release it back into the indoor air. Whether they are used to create a smooth surface, or are finely or heavily textured, Baumit Klima systems combine individual effects with an optimum room climate. For a healthy home.



SMOOTH	
	
<ul style="list-style-type: none"> <li>■ <b>Our smoothest finish</b></li> <li>■ <b>Modern and individual</b></li> <li>■ <b>Indoor climate-regulating</b></li> </ul>	
2x KlimaColor	PAINT
KlimaGlätt W	FINAL COATING
---	PRIMER
Klima KP 36 W	BASECOAT



## Next steps



### Visions and values

At Baunit, we build with quality and innovation as part of our commitment to creating beautiful, energy-efficient and healthy buildings. Built on 100 years of tradition, our practical, responsible, service-orientated values are core to our success.

With Baunit, boundaries are non-existent. Our focus on product performance and continuous development allows ideas for future construction solutions to flourish. Our products are proven, trusted and durable; their sustainable credentials fostered by our well-founded reputation as pioneers and awareness-raisers for environmental issues.

We believe life is worth living well, an ethos that is reflected in our unique technologies, creating high-performance wall finishes that make comfortable, attractive, efficient living space inside and out - it's why people the world over Build with Baunit.

### Contact Us

Call: 0800 085 3659  
 Email: [contact@baunit.co.uk](mailto:contact@baunit.co.uk)  
 Web: [baunit.co.uk](http://baunit.co.uk)



## We can help you:

- Decide what insulation system is best
- Choose a render colour and finish
- Calculate u-values of external walls
- Provide application & technical support
- Find a Baumit approved installer

## What is Baumit Approved?


 A Baumit Approved installer will have been through one of our training academies and been site checked on a regular basis. What does this mean for you? It means that you can rest assured that they have been given the Baumit seal of approval and their work will have a warranty from us valid for 10 years.

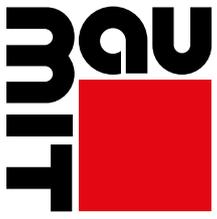
## Samples

Samples of all Baumit renders and paints are available to order via our website to assist in selecting the ideal render colour. You can order up to five samples per project free of charge.

Lead time on samples is 3-5 working days to despatch.

Order online: [baumit.co.uk/sample](http://baumit.co.uk/sample)





baumit.com



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