

# INTERIOR VALUES

For a Natural and Healthy Living



- Humidity Regulation
- Clean Indoor Air
- Cosy Living



# Interior Values

## HEALTHY LIVING

### Healthy living space

People now inhale up to **13.5 kg of indoor air and 1.5 kg of fresh air per day** – with the majority of the air we breathe coming from indoors, the quality of the air is vitally important. Air humidity, purity and temperature have a crucial impact on our quality of life, and consequently our health.

In order to save energy, our living spaces are becoming more and more tightly sealed. To ensure that indoor air remains "healthy" and our health is not compromised, it is essential to give due consideration to the quality and function of the construction materials used. For the most part, these remain within the building forever and must not emit any pollutants, as bad air causes illness.

#### 90 % of time spent in enclosed spaces

People spend approximately 90% of their lives in enclosed spaces. It is therefore worth paying particular attention to the interior walls and the indoor climate.

#### Tightly sealed building designs

A consequence of tightly sealed building designs is that insufficient ventilation results in an accumulation of released chemical and biological substances in the indoor air. To avoid this, in addition to increased ventilation, it also helps to use low-emission construction products.



#### Climate regulation

The skin is the largest organ in the human body. If skin functions are impaired, this has an impact on our well-being. The interior walls constitute the largest surface in a house. Like the skin, the interior walls undertake a variety of tasks. They are not just a creative element, but can also have a particularly important, but often underestimated, function: climate regulation. However, the inner walls can only take on this function if the materials used are suitable for this purpose, are compatible in terms of their composition and have been carefully tested. Optimum, stable humidity and room temperature make a significant contribution to well-being.





## BENEFITS

### Healthy building materials

Energy-efficient construction also often means airtight building designs. As a result, any pollutants remain in the room for longer. The replacement of internal air with external air is now much lower than in old buildings. Modern buildings therefore place much higher demands on building materials than before.

This makes it all the more important to choose the right building materials, which should be free of pollutants, mineral-based and breathable. For many years, Baumit has been creating long-term healthy living and environmentally-friendly system solutions with its products for healthy indoor air, comfortable living and better relaxation.



### 1. Humidity control

A good mineral plaster system can act as a buffer for any peaks in humidity by absorbing excess moisture into the first few centimetres and releasing it again as required. This guarantees a constant level of humidity, ensuring a healthy indoor climate.

### 2. Clean indoor air

The purity of indoor air is determined by 3 factors. Physical (air humidity, temperature etc.), biological (mould, viruses, bacteria etc.) and chemical (VOC, softeners, fragrances etc.).

### 3. Comfortable living

Not too hot and not too cold. Not too dry and not too humid. A comfortable living environment is only created with the right interaction of various factors.



# 1. Humidity control

## NOT TOO HUMID AND NOT TOO DRY



### Relative humidity

**In addition to an optimum room temperature, air humidity also plays an important role in making you feel comfortable within your own four walls. As a general guide, relative humidity values of between 40 and 60% are considered healthy and pleasant.**

#### Effects of air humidity

The development of harmful organisms depends largely on the air humidity. Bacteria, viruses, allergies and asthma are able to develop particularly well if the air humidity is too high, but also if it is too low. If the air humidity is too high, it also encourages the growth of mould, while if it is too low, it can lead to respiratory infections.

#### Effect of interior plaster on indoor air humidity

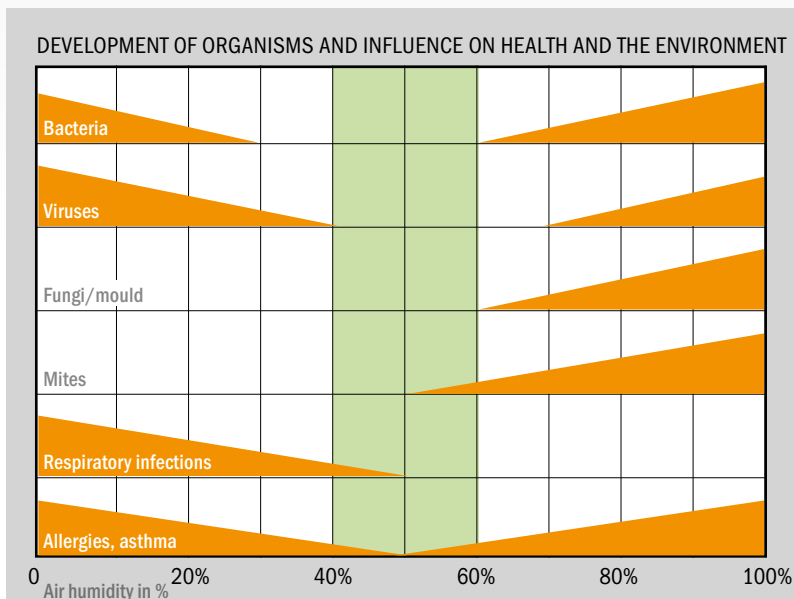
Interior plasters have a noticeable moisture buffering effect. In times of high air humidity, the humidity is absorbed so that it can be released again in times of low air humidity. The fluctuations in air humidity are therefore significantly evened out by the interior plaster. The layer thickness of the interior plaster also plays an important role here. The optimum moisture absorption capacity occurs at a layer thickness of 1.5 cm. Choosing the right interior plaster makes the indoor climate more balanced and creates a healthier living environment.





## Mould formation

If the air humidity is above the limit of 60%, there is a risk of an increase in the formation of harmful organisms such as bacteria, viruses, moulds, etc. Particularly in rooms that are exposed to large fluctuations in humidity, such as during cooking or showering, peaks in humidity can occur, leading to an increased risk of mould.





## 2. Clean indoor air

### GOOD AIR – GOOD MOOD

#### Influencing factors

In addition to temperature and air humidity, there are other criteria that affect the quality of indoor air. These can be divided into 3 main categories:

##### 1. Physical factors

As well as air humidity and temperature, physical factors include air circulation, dust, noise, light, electromagnetic pollution, etc. In some cases, these can be accurately measured using commercially available measuring devices, such as thermometers or hygrometers, allowing critical levels to be detected.

##### 2. Biological factors

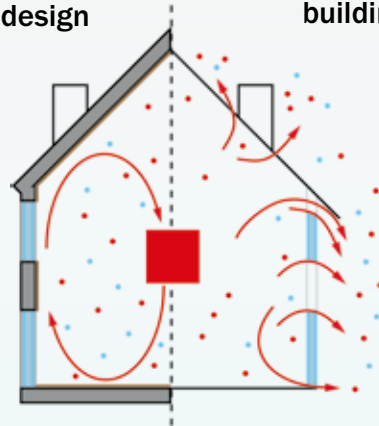
Viruses, bacteria, allergens, mites and mould spores are the typical biological factors. If they are not visible as a result of active mould on the walls, they are difficult to detect. However, they can pose a high risk to health and in particular lead to respiratory diseases.

##### 3. Chemical factors

These include in particular volatile organic compounds (VOCs) and CO<sub>2</sub>, tobacco smoke, fragrances and gases. We generally already detect this type of substance by smell, even if it is only present in very small quantities - often before they have reached harmful concentrations. It becomes problematic if, even after ventilation, harmful odours are still noticeable after several months and at the same time symptoms such as headaches, fatigue or irritation appear. In this case, it is necessary to identify the cause.

Modern buildings:  
more airtight  
building design

Older buildings:  
"leaky"  
building design



- Air polluted with harmful substances
- Humidity



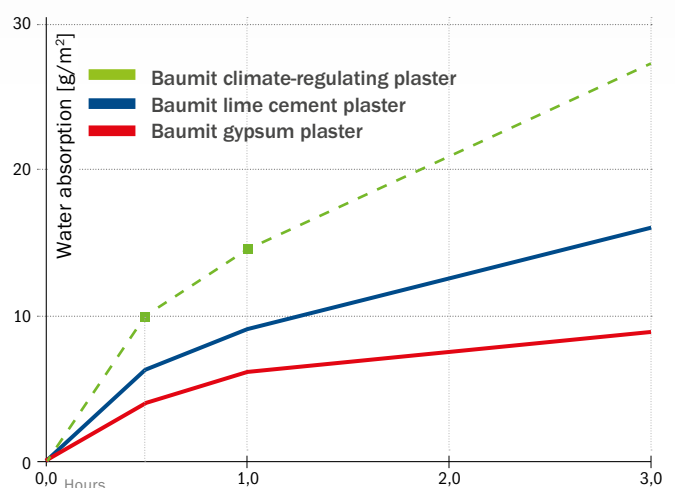
## The right building materials

Energy-efficient construction also often means airtight building designs. As a result, any pollutants remain in the room for longer. By choosing the right building materials, it is possible to mitigate the effects of these 3 influencing factors.

The replacement of internal air with external air is now much lower than in old buildings. Modern buildings therefore place much higher demands on building materials than before. This makes it all the more important to choose the right building materials, which should be mineral-based, breathable and free of pollutants. For many years, Baumit has been creating long-term healthy living and environmentally-friendly system solutions with its products for healthy indoor air, comfortable living and greater well-being.

## Measuring absorption

A 4-person household produces about 5 litres of moisture per day in the form of water vapour from cooking, showering, breathing, drying laundry, house plants, etc. As a result of our daily routine, more moisture is created in the mornings and evenings than during the day. This naturally has an effect on indoor air humidity and well-being. Therefore, the moisture absorption capacity in the first few hours is much more important than the absolute moisture absorption capacity after 24 hours or more. With their combination of absorption rate and absorption amount, Klima plasters offer a decisive advantage.







### 3. Comfortable living

#### WELL-BEING AT HOME

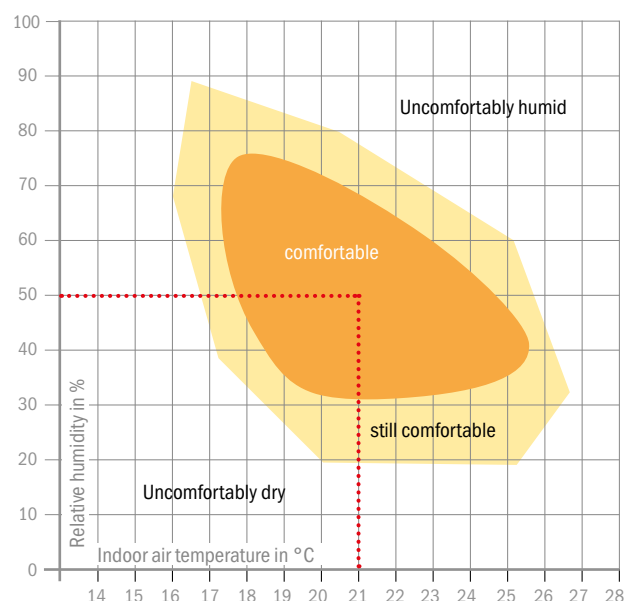
#### Pleasant indoor climate

**Comfortable living means being able to relax better at home. Relaxation helps you to recover more quickly so you can best meet the challenges of everyday life. Well-being is therefore an essential component for a healthy life.**

A comfortable climate in living spaces depends largely on factors such as the temperature, the temperature of the surfaces such as the walls, air humidity, air movement in the room and the air exchange rate. The interaction of these criteria with each other affects whether people feel comfortable in a room or not. In addition, clothing and physical activity play a role in the home.

#### Room temperature

Depending on the season, the temperature in the room is altered either by heating, ventilation or cooling. The most comfortable temperature for indoor air is usually between 20°C and 22°C in the living room and between 17°C and 18°C in the bedroom. However, in reality, a comfortable temperature always depends on the person and is perceived subjectively. It can be thought of as the average of the air temperature and the surface temperature of the inside surfaces of the room. In the summer, when it is hot outside, higher values are generally tolerated.



#### Effect of surfaces

The temperature of the surfaces also has an effect on the comfort. The surfaces include walls, windows, floors and radiators. Cold walls are perceived as unpleasant. In such cases, thermally upgrading the building increases the surface temperature of these areas and has a very positive effect on comfort and health. However, the difference between the wall surface temperature and the room temperature should not be greater than 3°C.





## Air humidity

Comfort depends on the actual room temperature and the air humidity. In living rooms, the air humidity at a room temperature of between 20 and 22 °C should be between 40 and 60%. The relative humidity can be checked with a commercially available hygrometer. If the room air is too dry, this is perceived as unpleasant and this can lead to the mucous membranes in our respiratory system to dry out.

## Air exchange rate

If the air exchange rate is too low, for example due to infrequent ventilation and a very airtight construction, metabolic products from people and other chemical substances released during use of the house accumulate in the indoor air. These have a negative effect on the air quality. Stale air leads to an unpleasant living space.



## Air movement

In combination with the criteria mentioned, the air speed also influences the sense of comfort. If the indoor air moves too much, this is usually perceived as an unpleasant draught, also known as convection.

INDOOR CLIMATE	AIR CIRCULATION	AIR QUALITY
Relative humidity 40-60%	Wall surface temperature = radiant heat, cold	CO <sub>2</sub> content ≤ 0.1 vol.% = 1,000 ppm
Room temperature 20-22 °C	Air flow rate (draughts) ≤ 0.20/s	Fresh air consumption 20-30 m <sup>3</sup> /hour and person
	Temperature difference between floor and ceiling ≤ 4 °C	TVOC (total volatile organic compounds)





# INTERIOR VALUES

## PRODUCTS & SYSTEMS



**1**

**KLIMA**

90

PRODUCTS | SYSTEMS



## Healthy. Reliable. Beautiful.

Healthy living starts with the right choice of building materials. Above all, a beneficial room climate is important - optimum, stable humidity and room temperature contribute significantly to our well-being. The Baunit Klima products are designed to promote these properties.

### HEALTHY LIVING - BETTER LIVING

With 90% of our time spent indoors, the air quality inside our homes is important for maintaining good health. With a focus on conserving energy, our 'living spaces' are becoming increasingly impermeable. 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.







## How do walls support my health?

**Baumit  
Klima**



## 9 good reasons to invest in a healthy living environment

- 1 Healthy living environment
- 2 Great feelgood factor
- 3 Durable and beautiful plasters
- 4 Strong and safe systems
- 5 Fast & precise application
- 6 Ready to use products
- 7 Individual and creative style
- 8 Modern and decorative
- 9 High quality for your well-being

### PRODUCTS - KLIMA

Moisture-regulating, lime-based and non-toxic. Products from the Baumit Klima range regulate the indoor climate completely independently. The result is a very pleasant indoor climate – not too humid and not too dry, throughout the year. Scientifically proven by Viva Research Park. Baumit Klima products stabilise the moisture content of our indoor air, quickly absorbing excess moisture, storing it and, if necessary, quickly return it back to the room air.

### SYSTEMS

Whether you require a smooth surface, fine or more textured, the Baumit 'air conditioning' systems combine individual design styles with optimal room climate, for a healthy home.



## PRODUCTS

# KlimaGlatt



### LIME PLASTER

- Improves the indoor climate & highly permeable
- High quality, smooth surface
- No harmful substances & mould resistant

#### The fine one

Baunit KlimaGlatt W is a natural white, powdered lime plaster for indoor use. Use to achieve a high-quality, smooth surface on lime / cement-based plaster, concrete, aerated concrete and plasterboard. It is ideal for manual and mechanical processing.

# KlimaFinish



### READY PROCESSED SKIMMING PLASTER

- Improves the indoor climate & highly permeable
- Ready to use for a high quality smooth surface finish
- No harmful substances & mould resistant

#### The smooth finish

Baunit KlimaFinish is a ready-mixed, natural white lime putty for internal walls. Use as a skimming plaster to achieve a high-quality, smooth surface on lime and cement-based plaster, concrete, aerated concrete and plasterboard. It is ideal for manual and mechanical processing.

# Klima KP36



### WHITE LIME PLASTER

- Room climate regulating & highly permeable
- Natural white
- Pollutant-free, with mould protection

#### The whitest

Baunit Klima KP36 W is a vapour-permeable, natural white lime light plaster, which actively regulates indoor air humidity including in wet rooms. The natural microporous structure ensures rapid absorption and release of water vapour for an excellent indoor climate. Baunit Klima KP36 is suitable for machine application.

# Klima RK70 N



### WHITE LIME PLASTER

- Room climate regulating & highly permeable
- Universal indoor plaster
- Pollutant-free, with mould protection

#### The most versatile

Baunit Klima RK70 N is a mineral, natural white lime-based fine plaster for internal use. Perfect as a topcoat on lime / cement-based plaster surfaces, as well as being suitable for use as a thin-layer plaster onto concrete, aerated concrete and plasterboard. It is characterised by high water vapour permeability and improvement of indoor climate properties. Baunit Klima RK70 N is suitable for both manual and mechanical processing.



## KlimaDekor



### TOPCOAT LIME PLASTER

- Improves the indoor climate & highly permeable
- Used for textured finishes & can be tinted
- Pollutant-free & mould resistant

#### The designer finish

Baumit KlimaDekor is a mineral, permeable, natural white, ready-mixed, lime-based texturing plaster. Emission and solvent-free (E.L.F.) and preservative-free. Ready to use and available in all Baumit Life colours with the final digit 8-9.

## KlimaColor



### SILIKAT INTERIOR PAINT

- Highly permeable and moisture-regulating
- Emission- & Solvent-free (E.L.F.)
- Excellent paint coverage

#### The colourful one

Baumit KlimaColor is a vapor-permeable one-component silicate paint with excellent coverage. In addition, it is very low in odour, emission and solvent-free (E.L.F.) and preservative-free. The ready-to-use paint can be rolled, brushed or applied by airless machine. Available in Baumit Life colours ending in 7-9.

## KlimaPrimer



### PRIMER

- For absorbent and chalking surfaces
- Emission- & solvent-free (E.L.F.)
- Filled primer for optimal adhesion

#### The balanced one

Baumit KlimaPrimer can be used on top of plaster to prepare the surface before the application of KlimaDekor or KlimaFinish. The low odour emission and solvent free (E.L.F.) formulation has a positive effect on the indoor climate.





## SYSTEMS

# BREATHABLE & PLEASANT

### BUILDING HEALTHY

- **Modern and individual**
- **Fast application**
- **Vibrant surfaces**

Baumit Klima products are impressive when used in a system, and they offer the perfect solution for every taste. Whether your interior walls are smooth, lightly textured or highly textured, with their indoor climate-regulating properties, the products in the Baumit Klima range are always the right choice.

#### Smooth

This system transforms your interior walls into uniquely smooth surfaces, giving them an exceptionally modern look. Baumit Klima KP 36 W is used as a plaster undercoat. With its optimal moisture buffering, this highly vapour-permeable, natural white, light plastering mortar ensures an excellent indoor climate. In the next step, with a grain size of 0.1 mm, Baumit KlimaGlatt W or the ready-to-use KlimaFinish makes the surface virtually as smooth as glass.

Add an individual touch with two coats of Baumit KlimaColor. This high-quality, natural, mineral and silicate-based paint impresses with its good application properties and high level of opacity.



#### Lightly textured

If you want a light texture for your interior walls, Baumit Klima KP36 W is the right choice for you. With a grain size of 1.0 mm, you can use it to create fine textures that give your interiors a very special touch. And you can get even more creative! Once you have applied Baumit Klima KP 36 W, you can then paint it directly with two coats of Baumit KlimaColor. Available in Baumit Life colours ending with 7, 8 or 9.

#### Textured

Highly textured for strong performance. Baumit KlimaDekor makes this possible and produces vibrant and beautiful surfaces. This ready-to-use, thin-layered finishing coat can be applied easily and quickly, as well as being low-emission and free of solvents softeners. Baumit Klima KP 36 W is also used as a plaster undercoat for this. You can then add a coat of Baumit PremiumPrimer to create the perfect substrate. Its high-quality formula guarantees exceptional anti-porosity performance, a high level of opacity and optimal adhesion, as well as the beautiful resulting texture of Baumit KlimaDekor.







## SMOOTH



- Surfaces as smooth as glass
- Modern and individual
- Indoor climate-regulating

2x KlimaColor

KlimaGlatt W

---

Klima KP 36 W

## FINE TEXTURED



- Fine textures
- Fast implementation
- Creative design

2x KlimaColor

---

---

Klima KP 36 W

## TEXTURED



- Vibrant, beautiful surfaces
- Simple and quick application
- Natural

KlimaColor

KlimaDekor

KlimaPrimer

Klima KP 36 W

PAINT

FINAL COATING

PRIMER

BASECOAT



## Baumit Ltd

t: +44 (0)1622 710 763  
e: [contact@baumit.co.uk](mailto:contact@baumit.co.uk)  
w: [baumit.co.uk](http://baumit.co.uk)

Unit 2 Westmead, New Hythe Lane,  
Aylesford, Maidstone, Kent, ME20 6XJ

**Ideas with a future.**