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Ideas with a future.

Health is in the Air

Walls guarantee the best inside climate

After two years of intensive research analysing and evaluating 5 million data points, it is clear that construction methods and building materials have a significant impact on health and quality of life. Regardless of which architecture you choose when building a house, all houses have one thing in common. In order to create a healthy building, the following three elements have to be taken into account:

HealthyLiving

INSULATION FIRST
PROTECTION AND COSINESS

Good thermal insulation not only makes a significant contribution to the energy efficiency of your building, but also ensures pleasantly warm walls in winter and pleasantly cool walls in summer. The living space thus becomes a comfortable space with no draughts. Living becomes more comfortable and healthy.

SOLIDITY COUNTS
SAFETY AND COMFORT

Solid walls, as well as solid ceilings and floors, can be externally protected with good thermal insulation so they store heat in the winter and keep the coolness in the house in summer. The more mass, the more effective the storage and the more stable, pleasant and healthy the indoor climate.

INTERIOR VALUES
NATURAL AND HEALTHY LIVING

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 later. This guarantees a constant level of humidity, ensuring a healthy indoor climate.

Interior Values
HEALTHY LIVING SPACE

People now inhale up to 13.5 kg of indoor air and 1.5 kg of fresh air per day – with such large quantities, 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 OUR TIME SPENT IN INDOOR

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.

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:

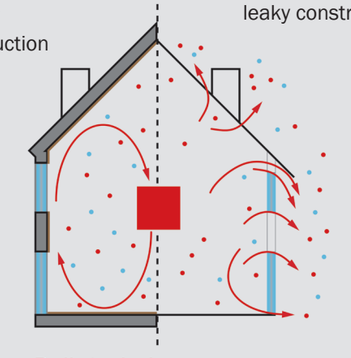
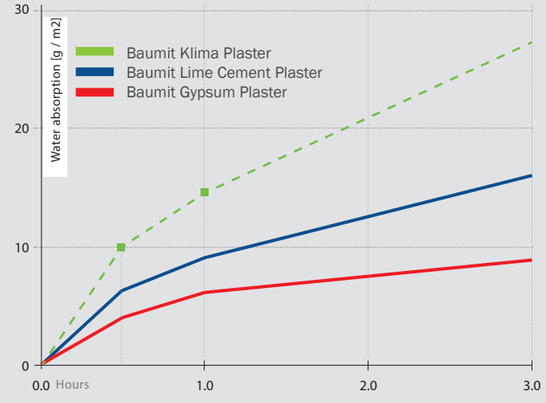
1. Physical factors
As well as air humidity and temperature, physical factors include air circulation, dust, noise, light, electromagnetic pollution, etc. In some cases, these can be accurately measured using commercially available measuring devices, such as thermometers or hygrometers, allowing critical 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_2, tobacco smoke, fragrances and gases. We generally already perceive 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.

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 ability much more important in the first few hours as the absolute moisture absorption capacity after 24 hours and more. In the interaction of absorption and absorption amount have KlimaPutze a decisive advantage.

New buildings today: denser construction

Older new builds: leaky construction