***Solidity Counts***

*Enjoy the silence*

*Healthy living means solid construction*

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:

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.

**THE RIGHT BUILDING MATERIALS**

For many years, Baumit has been creating healthy living and environmentally-friendly system solutions with its products for healthy indoor air, comfortable living and better relaxation. Our home should, on one hand, provide protection and, on the other, enable us to recharge our batteries, enjoy some rest and devote ourselves to the nice things in life without stress.

VIVA Research Park

A wide range of environmental influences affect us every day. Many of these are rated as detrimental, and can therefore have a negative effect on our well-being and our indoor comfort. At Baumit’s VIVA Research Park, intensive research is being carried out to establish how different building materials and construction methods interact with many of these influences. A vast amount of data is collected, measured and subsequently evaluated. The results ultimately prove the effect or influence of different building materials on the mentioned environmental factors.

**INFLUENCING FACTORS**

Solid, mineral building materials

It is in the nature of things that different materials and substances have different physical and chemical properties. Which substances and building materials ultimately have a positive, reducing effect on certain negative environmental influences?

“There is no substitute for mass.”

Solid building materials act on one hand like a battery, absorbing, storing and releasing energy. Rooms with a high thermal storage mass therefore overheat much more slowly and also cool down much more slowly. Solid building materials thus have a direct effect on the well-being factor of rooms and buildings. A solid construction also has a positive effect on sound insulation, as any noise is more dampened and better shielded. In addition, these building materials mainly consist of natural mineral substances, so they also help to promote pollutant-free indoor air.

1. Sound

Buildings are affected by a variety of sounds: from outside, for example, street noise, passers-by, as well

as the environment. Inside, the well-being environment is influenced on the one hand by the neighbours, e. g. footsteps, but the internal walls and furnishings also play an important role. In general, external noise is only perceived as half as loud in houses made of concrete as in houses with a timber frame construction and plasterboard panels. External thermal insulation composite systems can help to increase the sound insulation.

2. Temperature fluctuations

Hot summer temperatures or rapidly cooling rooms in the winter create a host of different feelings in our bodies and can have a negative effect on sleeping comfort and recuperation. Thermal storage capacity plays an important role because the right building materials can help to buffer or balance these effects due to their mass by storing heat.

3. Emissions

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 and permeable.