



Environmentally Friendly

# THE CLAYBRICK COMMITMENT

# BUILDING A SUSTAINABLE FUTURE WITH CLAY BRICK

Clay Brick provides a tried and tested building solution that is widely recognised for its strength, durability, ageless beauty, thermal, acoustic- and fire-resistant properties. Its contribution in meeting the social, economic and environmental responsibilities of sustainable development is firmly founded in its performance.

As an industry, many ClayBrick manufacturers in South Africa source energy from the waste streams of other industries as a means of contributing to the environment, while others invest in transforming former quarries into bird sanctuaries and water catchment facilities, to further reduce the impact on the environment.

Much like any building or structure depends on pillars of equal strength for support, so too, do the economic, social and environmental aspects of sustainability need to be strong and balanced to operate as a system. Now, more than ever, your choice of building material needs to meet all three criteria for sustainable development.

Clay Brick with its high thermal mass and enduring strength ensures optimal occupancy comfort and energy efficiency over the entire life span of the building, thereby also reducing greenhouse gas emissions. This is in keeping with the provisions of SANS 204, the national standard for energy efficiency in buildings. .



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# ENVIRONMENTAL SUSTAINABILITY

Many organisations around the world are fast subscribing to principles like the Global Reporting Initiative and the Carbon Disclosure Project, as a means of emphasising their commitment to best practice in sustainable development.

Likewise, with today's property developer becoming more environmentally conscious, many are realising the importance of developing low impact, energy efficient structures, that benefit both the environment and the occupants of buildings.

Clay Brick buildings enjoy a life span exceeding

hundreds of years, and remain aesthetically constant and pleasing to the eye. Not only do Clay Face Bricks and unplastered Clay Stock Bricks ensure significant savings on maintenance and painting over the building's life cycle, they also facilitate a reduction in greenhouse gas emissions.

Clay Bricks are also fully recyclable, and can be crushed for reuse or returned to earth; thereby also minimising waste.

It is, therefore safe to say that Clay Brick structures are in harmony with the environment.

# ECONOMIC SUSTAINABILITY

Clay Brick buildings owe their resilience to the durability and natural properties of clay. No matter the climatic conditions, sun, wind or rain, Clay Brick structures prevail.

The thermal capacity inherent in Clay Brick construction allows for heat flow through the building envelope to be delayed and reduced, thus moderating internal temperatures and curbing the need for additional heating and cooling mechanisms.

Clay Brick buildings provide an economic benefit to any property owner in terms of style, low maintenance and low energy usage. By virtue of their ease of use, Clay Bricks also contribute toward efficient construction. Seldom do they become too wet to work with, which means that productivity is maintained throughout the development process, ultimately saving the developer on time and labour costs.

# SOCIAL SUSTAINABILITY

Clay Brick is a harmonious material largely recognised for its aesthetic contribution to the built environment in terms of its warmth, character and natural appeal.

The comfort, security and low energy usage requirement provided by the strength of Clay Brick walls, has over the millennia contributed to the high social status associated with owning a brick house. This serves to justify why communities, both wealthy and poor,

demand the use of Clay Brick for their homes and buildings.

By building with Clay Brick, businesses, government and professionals alike are showing a commitment to the built environment which employs human capital and skills. The hands on approach required in Clay Brick construction, contributes directly towards job creation.

# SUSTAINABLE BUILDING ATTRIBUTES

Clay Brick construction contributes positively to the reduced energy usage of buildings. These findings are based on recent research undertaken in both South Africa and Australia, and reveals that focusing solely on the thermal resistance of a building shell is detrimental to energy efficiency. The optimal wall system should contain a minimum level of thermal capacity, as well as thermal resistance.

The Clay Brick possesses both capacity and resistance. Where certain climates require additional resistance, this can be added. The optimal levels of capacity and resistance, known as the CR value, are included in the Deemed to Satisfy portions of SANS 204.

To provide their stakeholders with the assurance of sustainability, many property owners and

developers alike are employing the assessment rating tools of the Green Building Council of South Africa, known as Green Star.

Clay Bricks can assist a project team in designing and obtaining certification under Green Star, by means of reducing energy consumption of the whole building through an energy efficient shell, as well as through:

- Reduced usage of cement
- Recyclability of materials
- Possibility to achieve passive solar design
- Local product availability
- Zero volatile organic compounds
- Opportunities to innovate
- Reduced lifecycle maintenance