



CLAY BRICK FACTS

Intrinsically Sustainable and Energy Efficient “Clay Brick Ticks all the Boxes”

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www.claybrick.org

Intrinsically Sustainable and Energy Efficient “Clay Brick Ticks all the Boxes”

- **STRUCTURAL INTEGRITY**
Clay Brick construction has proven integrity 100 years and beyond

✓
- **LONGEVITY**
Provides opportunity to dissipate all embodied energy over its lifecycle

✓
- **NON COMBUSTABLE AND FIREPROOF**
Clay Bricks do not normally suffer structural damage during fire and can therefore continue their load bearing function

✓
- **CERAMIC PROPERTIES**
Can withstand saturation from flood water without being adversely affected structurally

✓
- **HEALTHY ENVIRONMENT**
Have mineral properties that meet all necessary requirements for healthy living

✓
- **PHYSICAL ATTRIBUTES**
Have a natural propensity to absorb moisture from the air when the relative humidity is high and returns it when indoor air becomes drier

✓
- **INORGANIC**
Release no VOC's to impact on air quality

✓
- **INERT QUALITIES**
Release no toxic fumes/gases under either normal or fire conditions

✓
- **SOUND INSULATION**
High mass of Clay Bricks naturally offers high acoustic protection

✓
- **DURABILITY**
Low maintenance qualities mitigate future carbon debt associated with refurbishment and replacement of less durable walling materials and systems

✓
- **COLOUR-FAST**
Enduring hues and textures that eliminate carbon debt associated with painting

✓

- **THERMAL MASS**
 Uses energy gains from the sun providing the “X” factor to the thermal efficiency equation in South African climates
- **THERMAL CAPACITY**
 Provides the propensity to “self-regulate” keeping internal space naturally cool in summer and warm in winter
- **CR PRODUCT**
 High thermal capacity (C) with resistance (R) supports high CR product values proven necessary for achieving optimal energy efficiency and lowest heating and cooling energy usage
- **MASS ENHANCED R-VALUE**
 Inherent thermal capacity eliminates or significantly reduces the need for high R-value insulation materials between the brick skins (as required for energy efficiency of alternate lightweight building technologies)
- **THERMAL CAPACITY WITH RESISTANCE**
 Possesses both thermal properties integral to optimising the benefits of Passive Solar Design
- **ENERGY EFFICIENCY**
 Assures highest energy ratings most cost effectively
- **LIFECYCLE ENERGY**
 Proven low and lowest lifecycle energy costs for South Africa’s climates
- **REUSABLE**
 As masonry or pavers
- **RECYCLABLE**
 Reused as aggregate for brickmaking and concrete products
- **BENIGN IN NATURAL ENVIRONMENTS**
 Assured toxic free landfill – from the earth back to the earth