

Bamburi Cement Limited is East Africa's Leading cement producer with an annual capacity of 2.3 million tons, and a member of Lafarge Group - the world's largest building materials supplies group. Bamburi is one of the most technologically advanced yet environmentally responsible cement producers in Africa.

All Bamburi cement products are produced under stringent quality controls in line with both Kenya Bureau of Standards and EN (European Norms) standard specifications. Bamburi Cement products have been awarded the superior Diamond Mark of Quality certificate by the Kenya Bureau of Standards, epitomising excellent consistent performance on quality and compliance to standards.

Bamburi Cement provides the **WIDEST** and most **INNOVATIVE** range of Cement and Concrete Solutions.



To delight our customers with innovative construction solutions while being committed sustainability.



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POWERCRETE CEM 1 52.5 For ultra high strength concrete







POWERCRETE CEM I 52.5

General

POWERCRETE 52,5 is the first **52.5** grade cement in East Africa. It now sets the standard for strength in cement and is especially ideal for high strength applications such as prestressed concrete railway sleepers, skyscraper foundations, precast slabs and beams, bridges, overpasses, windmill foundations, heavy-duty industrial floors, pre-stressed or posttensioned concrete and more.

Characteristics

Product type: Ultra high strength cement: Compressive strength 52.5 MPa (N/mm²) minimum

Conformity: Manufactured to harmonized East African standard KS EAS 18-1 as adopted from EN 197-1 (European Norm) standards

Constituents: Clinker, gypsum

Technical name: Portland Cement CEM I 52.5 (Ex-Mombasa Plant)

Benefits

- Fast setting period
- Highest early and 28 day concrete strengths
- Reduced probability of plastic shrinkage cracking (due to less paste content per cubic meter of concrete)
- Less cement usage per cubic metre of concrete for equivalent strengths
- Free lime content (fCaO) $\leq 1.0\%$
- Alkali content (Na₂O equivalent) ≤ 0.60% to guard against alkali-aggregate reaction
- C_3A content $\leq 8.0\%$
- Loss on ignition (LOI) $\leq 3.0\%$

Applications

For ultra high strength concrete





Railway sleepers





High rise buildings



Pre-stressed beams and elements

Others

Bridges

- Centrifugally spun precast concrete poles and pipes
- Overpasses/viaducts/flyovers
- Large precast concrete elements
- Raft foundations for skyscrapers
- Self compacting concrete
- High strength concrete for columns and suspended slabs
- Heavy duty industrial floors and water retaining structures
- Ordinary foundations, slabs, beams and columns

Storage & Usage information

STORAGE

Store bagged cement by stacking on raised timber platforms or plastic sheeting to prevent rising dampness. Avoid contact with external walls. Use the cement in the order you have received it i.e first in first out.

MIXING



WATER

In general, the more water used for a given quantity of cement, the weaker the concrete or mortar will be. It is therefore important to use the minimum amount of water required to make the mix workable.

CURING



Concrete or plaster should be kept moist for atleast 7 days to prevent cracking and to ensure that its strength increases. Spray gently with water or protect it with plastic sheets (or wet hessian) to prevent it from drying out.

HEALTH AND SAFETY WARNING





- When working with cement wear safety glasses and gloves
- Wash your hands after working with wet cement
- Wear a dust mask
- Wear a safety helmet
- In the event of cement contact with eyes, rinse thoroughly with water and get medical attention if necessary
- Keep cement out of reach of children