



Bamburi cement

Bamburi Cement Limited is East Africa's leading cement producer with an annual capacity of 3.2 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 Kenyan and EN (European Norm) 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.

Our Vision

To be the undisputed leader and preferred partner by providing innovative solutions for nation building.

 A member of
LafargeHolcim

Contact us on

Email: ke-customer.service@lafargeholcim.com

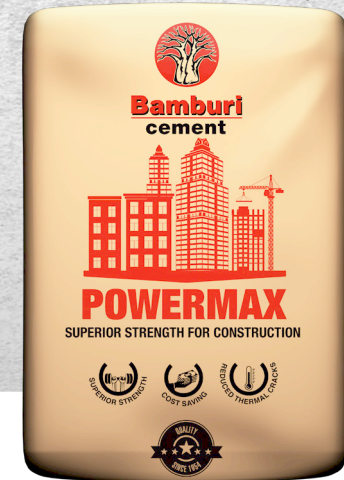
Telephone: 020 661 4000

Website: www.lafarge.co.ke

APPLICATION BASED CEMENT



POWERMAX CEM II 42.5 For High Strength and Low Heat of Hydration



Bamburi
cement

Part of you. From the start

POWERMAX 42.5 CEMENT

General

POWERMAX 42.5 is a premium cement that combines excellent strength performance at all stages with versatility and enhanced durability benefits.

POWERMAX 42.5 combines high technical performance for large projects with all round versatility for the small user.

The characteristics of **superior workability**, high early and 28-day strengths in particular makes **POWERMAX 42.5** the effective solution for the productivity demands of construction projects.

The attribute of **Low Heat of Hydration** significantly reduces the risk of thermal cracking in large concrete pours with lowered peak temperatures at all ages.

Composition & Performance

Bamburi Cement manufactures two types of Powermax cement:

- POWERMAX CEM II/B-L 42.5** is a Portland limestone cement produced at our Bamburi Cement plant in Mombasa by intergrinding Portland Cement Clinker with limestone.
- POWERMAX CEM II/B-P 42.5** is a Portland pozzolanic cement produced at our Nairobi Grinding plant by intergrinding Portland cement clinker with pozzolana.

The products conform to the physical and chemical requirements of the harmonised East African Standard KS EAS 18-1 as adopted from the European Norm EN 197-1 cement standard.

Bamburi Cement manufactures **POWERMAX 42.5** under strict quality assurance and quality control procedures to ensure optimum product performance and consistency.

There are many variables that affect concrete performance that are beyond the control of the cement manufacturer. Skilled persons should use cement with special attention given to batching, mixing, placing, compacting, finishing and curing.

The judicious selection of concrete constituent materials with special emphasis on aggregates complying to relevant standards coupled with a proper **concrete mix design process and testing of trial mixes** will assist users in obtaining required concrete strengths and performance.



Benefits

POWERMAX 42.5 retains the early 28 day strength characteristics of **CEM I (OPC) 42.5** Cement while having the following enhanced attributes:

- Low Heat of Hydration (reduces cracking)
- Improved workability
- Reduced bleeding
- Reduced porosity
- Improved cohesion
- Environmentally friendly (less CO₂ emission)
- Smoother surface finish
- **Powermax CEM II/B-P 42.5** has enhanced durability due to improved sulphate resistance properties

The high early strength capability of **POWERMAX 42.5** provides for the needs of specialist technical applications, in particular high strength concretes and construction techniques such as pre-stressing and post-tensioning.

Applications

POWERMAX 42.5 offers effective solutions to the requirements of a wide range of specialist and ordinary applications.

FOR HIGH STRENGTH CONCRETE

Where high concrete strengths, rapid demoulding and construction speed is required.



Bridges



High-rise structures

FOR LARGE PROJECTS

Where projects require large pours with low heats of hydration for long term durability.



Dam/reservoir construction



Deep Rafts, Large Beams, Columns and Slip Form Works

FOUNDATION WORKS

POWERMAX 42.5 is suited for all types of foundation works. Due to its fast setting and low permeability properties, it is specially suited for foundations where the water table is high or there is presence of ground water.



Foundation

FOR ORDINARY CONSTRUCTION

Where the versatility of **POWERMAX 42.5** is of essence. All concrete works with a wide range of strengths including concrete slabs, beams, columns, water retaining structures, retaining walls etc.

Storage & Usage information

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| | <h3>HANDLING AND STORAGE</h3> <p>Transport cement in vehicles with adequate protection from humid weather. Store cement on timber pallets at least 10cm above the floor in a dry building free from moisture or water. Stack cement to a maximum of 10 bags. Use the cement in a first in first out basis.</p> |
| | <h3>AGGREGATES AND MIXING</h3> <p>Use sand and aggregates that conform to relevant standards. Accurately measure all materials with a suitable container, wheelbarrow or bucket. Mix thoroughly until a uniform color is obtained.</p> |
| | <h3>WATER</h3> <p>Use clean water without impurities (e.g salts, grass, mud etc) for mixing concrete or mortar. Use the minimum amount of water required to make the mix workable. The use of excess water will reduce the concrete or mortar strength.</p> |
| | <h3>CURING</h3> <p>Keep concrete plaster moist for at least 7 days to prevent cracking and to ensure increase in strength. Spray gently with water or protect it with plastic sheets, wet hessian or moist sand.</p> |

Health and safety /Environmental advisory

- When working with cement wear safety glasses and gloves.
- Wash your hands after working with wet cement.
- 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.
- Do not litter, dispose in a designated dustbin.
- Packaging can be reused or recycled.
- Do not burn, burning plastics affects the environment.