

CEMENT

Mphamvu

Portland Limestone Cement

For building and structural use



bringing materials to *life*™



Your guide to **Mphamvu**

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Innovation: Our Perpetual Driving Force

At Lafarge Cement Zambia, innovation based on customer needs lies at the heart of all our activities as we strive to be the preferred supplier in the building materials sector.

Producing innovative cement products is the perpetual driving force behind our work. With the added benefit of being backed by the Lafarge Group, we are able to continuously operate in an

efficient and sustainable manner. Being a part of this global network of knowledge and state-of-the-art cement technology is translated into a benefit for all our customers – superior quality cement.





Versatile Mphamvu 32,5N

Mphamvu is a Portland Limestone Cement with general purpose applications from domestic concrete to large building projects. It is as cost effective and technically suitable in manual block making operations as it is on major civil construction projects.

Composition:

Mphamvu Portland Limestone Cement is formulated from Portland clinker and interground limestone, in accordance with the specifications of ZS EN 197-1.

Special Characteristics:

Mphamvu is suitable for a wide range of general purpose and advanced building operations and complies with the ZS EN 197 for common cements. It has improved fresh-state characteristics offering:

- improved workability
- lower heat of hydration in mass concrete applications

Mphamvu also offers higher long-term strength and aligns with our commitment to protect the environment in which we operate.

Recommended Mix Proportions for Mphamvu 32,5N

Mphamvu is suitable for a wide range of applications from general purpose construction to major building projects.

Note: Use the same size container for measuring all the materials in a batch - see volume proportions below:



RECOMMENDED MIX PROPORTIONS FOR MPHAMVU

MPHAMVU IS SUITABLE FOR:	NUMBERS DENOTE VOLUME PROPORTIONS		
	CEMENT	SAND	STONE
HIGH STRENGTH CONCRETE: 25-30MPa Suspended Slabs, Reinforced Concrete, Heavy Duty Industrial Floors	1 	2 	2
MEDIUM STRENGTH CONCRETE: 20-25MPa Driveways, Light Industrial Floors - Unreinforced	1	2½	2½
LOW STRENGTH CONCRETE: 10-15MPa Foundations, Footings & Domestic Floors - Reinforced	1	3½	3½
LOW STRENGTH CONCRETE: 10MPa Domestic Poles & Post Foundations	1	4	4
MORTAR FOR BRICKLAYING & PLASTERING: 5MPa	1	6	-
Brick & Block Making Mix	1	8	-

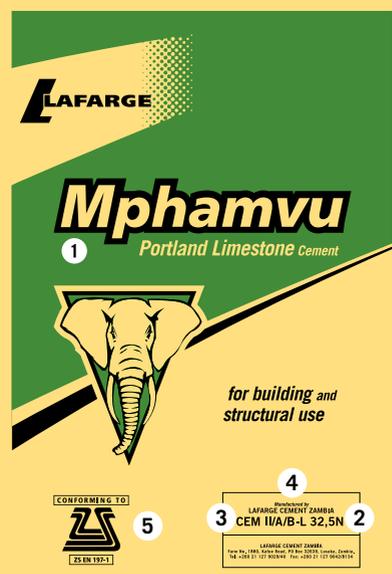
What the Bag Tells You

≪ Side of bag

≻ Front of bag

≻ Back of bag

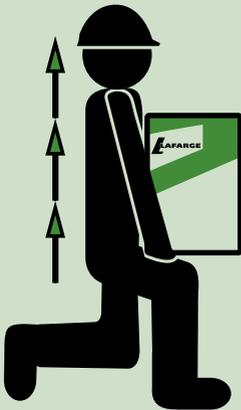
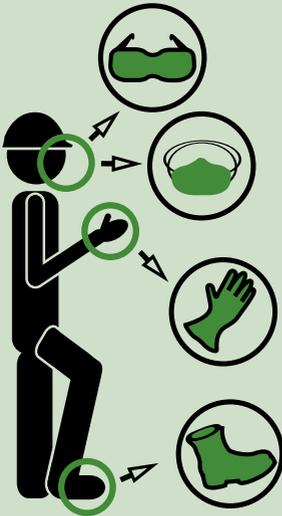






- 1** **Mphamvu Portland Limestone Cement**
The product name. It is a Portland cement blended with limestone.
- 2** **32,5N**
Identifies the 28-day strength class of the cement. 'N' denotes normal early strength development.
- 3** **CEM II**
Denotes a Portland composite cement type Class II.
- 4** **'A / B'** indicates the proportion of clinker used. 'L' identifies limestone as the specific constituent used.
- 5** **ZABS logo**
The Zambian Bureau of Standards logo of quality.

- 6** **50kg**
The quantity you paid for (i.e. the net weight of cement excluding the bag).
- 7** **Health and Safety**
Take note of the health and safety warning! Cement dust on moist skin or in eyes can be a strong irritant.
- 8** **Mix Proportions**
Show some typical standard concrete mix proportions.
- 9** **Hints**
Some useful guidelines on storing, mixing, water addition and curing of concrete.



Safety First at All Times

At Lafarge, safety is our No. 1 priority. This is why you will find that every bag of cement is not only produced in a safe environment, but contains a safety warning ensuring that our customers are safe too.

When dealing with cement, the following safety measures should be adhered to at all times:

- Avoid contact with cement – skin, eyes, mouth – wear gloves where possible.
- Skin exposed to wet concrete should be washed as soon as possible.
- Wear protective masks in high cement dust areas.
- Medical attention should be sought in cases of excessive inhalation or eye contamination.



Storing Bags of Cement

For best results, remember to follow these basic steps to keep your cement purchases in good condition:

- Stored cement must not be exposed to moisture.
- Remember that this does not only mean protect from rain: bags left on the ground will draw moisture from the soil.
- Preferably store loose bags in a warehouse or waterproof shed, taking care to:
 - store so that the oldest cement can be used first (FIFO: first in, first out)
 - keep loose bags off the ground/floor. Use plastic sheeting.
- If cement has to be stored outside:
 - create a platform with timber slats covered in plastic sheeting on which to place loose bags
 - cover the bags with sheeting to protect from the elements
 - create a ridge for the sheeting so that rain runs off instead of forming a pool
 - weigh down the edges of the sheeting with stones or timber to prevent it being dislodged by high winds.





About Lafarge in Zambia

Lafarge Cement Zambia is the country's major cement manufacturer and supplier of the preferred Mphamvu brand.

The Company was established in 1949 by the Northern Rhodesian Government and the Colonial Development Corporation, now the Commonwealth Development Corporation (CDC). Cement production commenced in 1951, with the installation of two more kilns in 1956 and 1967. In 1969, the Ndola Plant Kiln was commissioned and in 1974 a second kiln was added. The company was privatised in October 1994 under the government privatisation programme aimed at enhancing efficiency of state-owned companies. It was also the first company to be listed on the Lusaka Stock Exchange (LuSE), and CDC was the majority shareholder.

In 2001, CDC reorganised its cement operations in Southern Africa to form Pan African Cement (PAC), which owned shares in Chilanga Cement in Zambia, Mbeya Cement in Tanzania and Portland Cement in Malawi. In May 2001 Lafarge acquired PAC from CDC and a further 34% of Chilanga Cement through a compulsory offer to minorities. The minority shareholders are well dispersed with over 3,200 Zambian shareholders.

In 2007, Chilanga Cement changed its name to Lafarge Cement Zambia to align with the international Lafarge Group. We have continued to establish ourselves as a leader in the local manufacturing industry. The inauguration of our new plant at Chilanga has enabled us to cater for the ever-growing demands of the Zambian regional markets.

The Global Lafarge Group

Lafarge is a world leader in building materials and holds top-ranking positions in each of its businesses across the globe: Cement, Aggregates & Concrete and Gypsum. With 78,000 employees in 78 countries, Lafarge posted sales of €15.9 billion in 2009.

Lafarge responds to the needs of its customers, shareholders, local communities and the environment. This is achieved by research and development activities at the Lafarge Centre de Recherche (LCR) to develop new value-added products that provide greater solutions for our customers, increase our product ranges to better incorporate current sustainable construction concerns, and research sustained efforts to reduce greenhouse emissions in our industrial processes and materials.

In 2009, the Group increased the resources allocated to research and development, reinforcing the Group's expertise in the various fields across the three divisions.







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