

ZAMBIA

# SupaSet

Portland Limestone Cement

*For blockmaking and concrete*

**LAFARGE**  
Building better cities™





## *Your guide to* **SupaSet**

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# Innovation: Our Perpetual Driving Force

At Lafarge Zambia, innovation based on customer needs is 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.



## About SupaSet

SupaSet is an innovative product which is specifically geared at meeting the fast setting demands of the blockmaking and concrete market.

SupaSet is the result of careful research and development by our cement technical experts and is a specially formulated Portland Composite Cement engineered for use in all structural, building and masonry applications using recommended mix ratios. SupaSet for blockmaking and concrete offers the market greater ease of use, whilst producing excellent results every time. The consistent quality, fast setting and proven strength of SupaSet, makes it the ideal choice for block-makers, builders, architects, engineers, contractors and DIY enthusiasts.

Due to its rapid setting, SupaSet offers quick turnaround on production resulting in higher productivity and better returns. SupaSet is a premium brand which offers high quality blocks, concrete and other applications enabling you to produce more using less Cement.



# Applications

SupaSet for blockmaking and concrete offers consistent strength, fast setting, workability and durability, making it perfect for:

- Brick and blockmaking
- Precast operations
- Structural concrete applications
- Dam/reservoir construction

# Strength Performance







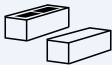



SupaSet for blockmaking and concrete offers the following characteristics:

- A high rate of early strength development improving the productivity of concrete product manufacturers.
- The fast drying rate allows for blocks to be moved quicker increasing the productivity of block-makers with limited storage space.
- Improved workability: for easier placing, compaction and finishing.
- Reduced water requirement resulting in less cracking and more strength, leaving fewer surface cracks and imperfections.
- Better cohesion: the concrete stays uniformly mixed, instead of segregating before the concrete can set.

# Recommended Mix Proportions for SupaSet 42.5R

SupaSet for blockmaking and concrete is suitable for a wide range of applications from general purpose construction to major building projects.

To get the best results from SupaSet, the following mix ratios should be followed for each type of application.

| SUPASET Cement Is Suitable For:   | Numbers Denote Volume Proportions   |   |   |
|---|---|---|---|
|   | CEMENT  | SAND / QUARRY DUST  | STONE   |
| <b>High Strength Concrete:</b><br>35-40Mpa<br>   | <b>1</b><br> | <b>2</b><br> | <b>2</b><br> |
| <b>High Strength Concrete:</b><br>25-30Mpa<br>Suspended Slabs, Re-inforced Concrete,<br>Heavy Duty Industrial Floors<br>   | <b>1</b>  | <b>2</b>  | <b>3</b>  |
| <b>Medium Strength Concrete:</b><br>20-25Mpa<br>Driveways, Light Industrial<br>Floors - Unreinforced  | <b>1</b>  | <b>3</b>  | <b>3</b>  |
| <b>Low Strength Concrete:</b><br>10-15Mpa<br>Foundations, Footings<br>& Domestic Floors - Reinforced<br>   | <b>1</b>  | <b>3</b>  | <b>4</b>  |
| <b>Brick &amp; Blockmaking Mix</b><br>   | <b>1</b>  | <b>10</b>   | <b>-</b>  |
| <b>NOTE:</b> Use the same size container for measuring all the materials in a batch - see volume proportions above.   |   |   |   |
|  +  =  |   |   |   |

# Guaranteed Quality

At Lafarge Cement Zambia we are committed to developing high-quality products. Our products adhere to the strictest quality standards whilst meeting social and environmental requirements.

This is made possible by a world-class Research and Development Centre in France which enables the Company to actively develop and enhance truly value-added products aimed at the unique needs and requirements of its various markets. To this end SupaSet has undergone stringent testing in laboratories and with customers to ensure the consistency and reliability for blockmaking and concrete applications.

Lafarge Cement Zambia's manufacturing facilities are ISO: 9001 certified and boast the highest possible Quality Management Systems. SupaSet for blockmaking and concrete is a Class II cement classified as CEM II 42,5R and is formulated from portland cement clinker in accordance with the specifications of ZS EN: 197-1.



# What the Bag Tells You

Side of bag

Front of bag

Back of bag

**1** *SupaSet for blockmaking and concrete*  
The product name.

**2** *42,5R*  
Identifies the 28-day strength class of the cement. 'R' denotes RAPID early strength development.

**3** *CEM II*  
Denotes a Portland composite cement type Class II.

**4** *'A'* 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.

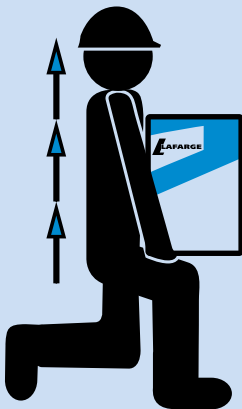
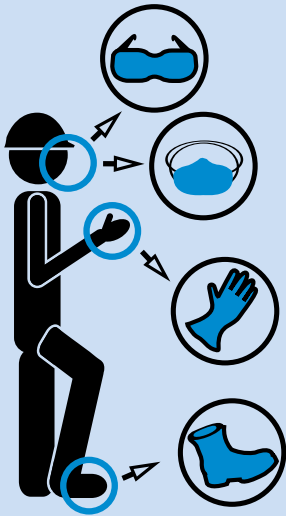
**6** *Systems certification logo*  
Certifies that the product is ISO 9001 certified.

**7** *50kg*  
The quantity you paid for (i.e. the net weight of cement excluding the bag).

**8** *Health and Safety*  
Take note of the health and safety warning! Cement dust on moist skin or in eyes can be a strong irritant.

**9** *Mix Proportions*  
Shows some typical standard concrete mix proportions.

**10** *Hints*  
Some useful guidelines on storing, mixing, water addition and curing of concrete.

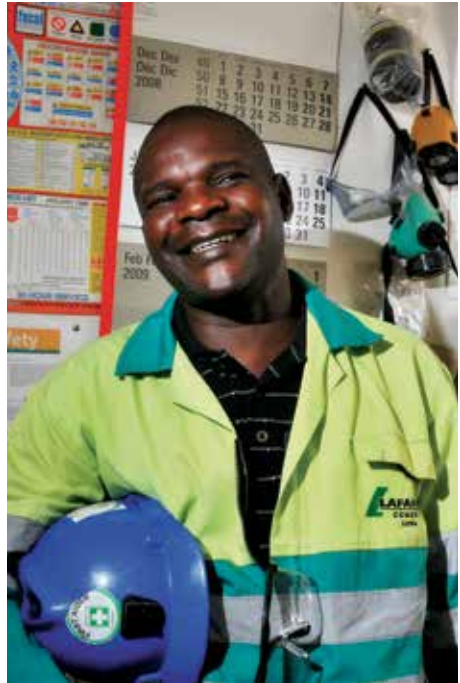


# Safety First at All Times

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 few basic steps to keep your cement purchases in good condition:

- Stored cement must not be exposed to moisture and water.
- 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 Zambia is the country's major cement manufacturer and supplier of the preferred Mphamvu and SupaSet brands.

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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