

DuraBuild Plus

GENERAL PURPOSE CEMENT • 32,5R
Ideal for brick and block making



Technical data sheet

CONSISTENTLY DELIVERING

 **AFRIMAT®**



The versatile good value 32,5R cement

Formulated to help our customers complete jobs quicker and better in today's competitive market. DuraBuild plus offers:

- Better early age strength with the 'R' classification – perfect for brick and block making
- Superior workability for user-friendly plaster and general concrete work
- Consistent strength that more than meets the needs of most small businesses
- Good value and reliable quality of the Lafarge South Africa name

Applications

DuraBuild plus provides a quality, user-friendly, good value solution for a wide range of projects:

Applications	DuraBuild plus 32,5R
Small businesses	
Concrete block and brick making	✓
Unreinforced light industrial floors	✓
Driveways and parking slabs	✓
In and around the home	
Masonry work: mortar and plaster	✓
Foundations, concrete driveways and paths	✓
Concrete columns and slabs	✓



Benefits

Whoever you are:

- Small construction contractor
- Concrete block and brick maker
- Plasterer
- Homeowner and DIY enthusiast

You can benefit from the user-friendly, all-round performance of DuraBuild plus:

FRESHLY MIXED CONCRETE	BLOCKS AND BRICK MAKING	HARDENED CONCRETE	MORTAR AND PLASTER
Superior workability for easier handling and finishing	Faster setting for quicker handling	More durable dense concrete	Easier mixing
Less bleeding for reduced cracking and better finish	Good early age strength	Good impermeability for less leakage from water features and ponds	Workable 'buttery' mixes
Better productivity as DuraBuild plus concrete is easier to place with less effort	Higher production rate	Good finishes for floor slabs, off-shutter work	Easier laying
	Better finishes for more saleable products	Higher long-term strength	Less bleeding giving better finishes
	Reliable strength for fewer handling losses		Early age strength for quicker work

Production - Composition - Quality - Strength

- DuraBuild plus is manufactured as CEM II/B-L 32,5R at our Lichtenburg factory and as a CEM V/A (V-S) 32,5R at our Randfontein Grinding Station in Johannesburg
- The product is available in 50kg bags
- The product conforms to SANS 50197-1 (EN 197-1) specifications in accordance with SANS 50196 (EN 196) test requirements
- Complying with the regulated standard SANS EN 50197-1, DuraBuild plus achieves a compressive strength $\geq 10,0$ MPa at 2 days and $\geq 32,5$ MPa, $\leq 52,5$ MPa at 28 days, as required for this class of general purpose cement

Guidelines for a mix

To make a batch of concrete, a standard builder's wheelbarrow that holds 65 litres of material is generally used to measure out the correct volumes of cement, stone and sand. DuraBuild plus is supplied in 50kg bags ("pockets") for use in a wide range of smaller jobs. 2 x 50 kg bags are equivalent in volume to one wheelbarrow.

Note: If you want to make a smaller batch of concrete, remember to use the same size container (for example a bucket) to measure all the ingredients. (Using a shovel to measure materials is not recommended because you cannot judge the quantities accurately.)

Recommended mix proportions by volume using DuraBuild plus 32,5R

(Numbers represent wheelbarrow loads)

	Cement	Sand	Stone
Block and brick making with crusher sand	1	8	-
Block and brick making optimised with crusher sand	1	9	-
Block and brick making with dump ash	1	6	-
Block and brick making optimised with dump ash	1	7	-
Mortar for bricklaying and plastering (5 MPa)	1	6	-
Low Strength Home Concrete: Foundations, Domestic Floors – unreinforced (10–15 MPa)	1	3,5	3,5
Medium Strength Driveways, light industrial floors – unreinforced (20–25 MPa)	1	2,5	2,5

Technical resources

DuraBuild plus is fully supported by the unique technical and laboratory resources of the Afrimat Integrated Solutions and Innovation Centre (ISIC). ISIC operates one of the largest and most respected SANAS accredited Civil Engineering testing facilities in South Africa. Complying with ISO/IEC 17025, the ISIC facility has a proud record of continuous accreditation since 1996.



An 'R' class cement versus an 'N' class

- The 'R' confirms that DuraBuild plus 32,5R achieves an early age strength of at least 10 MPa at 2 days, as required by the relevant cement standard. This is equal to a more expensive 42,5 cement.
- A 32,5N classification indicates that the product would take 7 days to achieve a strength of at least 16 MPa



Safety when handling cement

Before starting any job, make safety the first step in your planning. Cement is such a commonly available product that many people use it without giving any thought to personal protection. It is important to take sensible handling precautions:

- Avoid contact with cement (skin, eyes, mouth) and wear gloves
- Skin exposed to wet concrete should be washed as soon as possible
- Wear protective dust masks
- Seek medical attention in cases of excessive inhalation or eye contact

Storage and handling

- Stored cement must not be exposed to water or moisture (remember that bags left on the ground will draw moisture from the soil)
- Preferably store bags in a shed on plastic sheeting or pallets
- Only stack pallets two high – three is unstable and unsafe
- Close windows and doors to prevent damp air blowing over the bags
- Make tidy stacks with wide aisles to avoid damage by forklifts
- If stored outside, stack loose bags on pallets or timber slats under plastic sheeting
- Make a ridge with the sheeting so that rain runs off
- Cement deteriorates with time, therefore plan the layout of your stacks so that the bags that were the first-in can conveniently be the first-out (FIFO)
- Handle bags carefully to avoid tearing the plastic

Safety

Before starting any job, make safety the first step in your planning. Safety datasheets are available from:

- Integrated Solutions and Innovation Centre (ISIC) on 011 226 3600
- Website: www.afrimat.co.za

Ordering

Place orders for Durabuild plus via:

- Cement Call Centre on 011 657 1122
- Your local Sales Representative

Contact us

For further information on DuraBuild plus

- Please speak to your local Sales Representative
- Cement Call Centre on 011 657 1122
- For technical queries, please contact ISIC on 011 226 3600

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