

RoadCem

PORTLAND CEMENT • 52,5R
Premium high early strength cement



Technical data sheet

CONSISTENTLY DELIVERING

 **AFRIMAT®**



Innovative formulation has produced a range of specialised cementitious binders offering road project contractors:

- A choice of reliable, quality performance products
- Products designed to meet the needs of diverse road stabilisation projects
- Optimum solutions for the majority of typical soil conditions

Composition

RoadCem is produced in accordance with SANS 50197-1 (EN 197-1) at the Afrimat Randfontein Grinding Station (on the west side of Johannesburg) as:

- CEM II/B-M (V-S) 32,5N Portland-composite cement
- CEM V/A (V-S) 32,5N Composite cement

Afrimat Lichtenburg Cement Works in the North West Province formulates RoadCem as:

- CEM II/B-L 32,5N Portland-limestone cement

The products are available in 50kg bags, bulk or, as a bulk spreading service.

Note: Due to the demand for RoadCem, some products might not be available. Contact your local Afrimat representative to confirm availability of products.

Applications

Afrimat soil stabilising cements are designed to provide optimal solutions for improving the engineering properties of soil, such as:

- Strength - soil strength and bearing capacity are increased
- Better volume stability – by controlling the swell and shrinkage caused by moisture changes
- Durability - increases resistance to erosion, weathering and traffic loading
- Modification of clay minerals – enhances the soil strength and bearing capacity

Typical project applications include:

- Stabilisation of road base, sub-base and sub-grade materials (as well as ash dumps)
- Soils with either low or moderate plasticity
- In situ (including deep lift) stabilisation or pugmill blending

Note: The use of bulk spreading does speed up the placement process but it is not as accurate as the traditional method of placing bags.

Quality

RoadCem complies with the chemical and physical requirements of SANS 50197-1 (EN197-1) for a Class 32,5N cement. The RoadCem bag also displays the following locally regulated quality symbols: LOA number, SABS mark and e-Mark.

Physical properties

Property	Randfontein	Lichtenburg	SANS 50197-1 (EN 197-1) requirements
	RoadCem* CEM V A (V-S) 32,5N	RoadCem* CEM II/B-L 32,5N	
7 day Compressive strength	21	25 MPa	≥ 16,0 MPa
28 day Compressive strength	39	39 MPa	≥ 32,5 MPa ≤ 52,5 MPa
Setting time	320 minutes	240 minutes	> 75 minutes

*Typical test results

Chemical properties

Property	RoadCem*	SANS 50197-1 (EN 197-1) requirements
SO ₃	1,50% - 2,30%	≤ 3,5% m/m
Cl ⁻	0,02%	≤ 0,10% M/M

*Typical test results





Storage and handling

- Stored cement must not be exposed to moisture
- 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 first-in bags can conveniently be the first out (FIFO)
- When lifting bags of cement, keep a straight back and bend at the knees
- 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

Technical support

- RoadCem 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
- Laboratory soil evaluation will determine the composition and application rates of RoadCem best suited for a particular soil

Ordering

Place orders for RoadCem via:

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

Contact us

For further information on RoadCem

- 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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