

# Technical Product Guide



FAST STRONG CONFIDENT  
**CEMENT**

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\*Sephaku 52,5N only available in bulk

# Sephaku 32,5N

## General Purpose Product

32,5 Strength class Portland cement suitable for general purpose applications

### GENERAL INFORMATION

Sephaku 32 is a type CEM IV/B (V) 32,5N general purpose Portland cement and fully complies with the requirements for a Pozzolanic Cement in South African National Standards (SANS) 50197-1.

'N' denotes normal strength gain and the addition of high-grade fly ash ensures professional quality and less water to produce a cohesive mix and long term durability.

Sephaku cements have lower embodied CO<sub>2</sub> as a result of a proportion of the clinker that forms the base cement being replaced by an alternative cementitious addition.

### AVAILABILITY

Sephaku 32 is available in 50 kg bags and bulk throughout South Africa.

### STORAGE

Sephaku 32 should be stored in unopened bags, clear of the ground in cool, dry conditions where possible. If bags are stacked this should be done in a safe and stable manner. Information on the shelf life/maximum storage time can be found on the bag.

### COMPATIBILITY

Sephaku 32 is compatible with:

- Admixtures that comply with SANS 50934: Chemical Admixtures for concrete and mortar. Admixtures should always be used in accordance with the manufacturer's recommendations
- Fly ashes complying with SANS 50450
- Ground granulated blast furnace slags (GGBS) complying with SANS 55167
- Silica-fume complying with SANS 5013263
- Other cements which comply with SANS 50197-1

### PROPERTIES

Property		SANS 50197-1	Typical Sephaku 32 CEM IV B-V
Setting Time		≥75	220 - 230 mins
ISO Mortar Prism Compressive Strength	7 days	16 MPa	18 - 20 MPa
	28 days	32.5 - 52.5 MPa	36 - 40 MPa
Soundness		≤10 mm	≤3 - 6 mm

All testing is conducted in accordance with SANS 50197-1 test methods at a SANAS accredited laboratory.



### APPLICATIONS

As a general purpose cement Sephaku 32 is suitable for use in concrete, mortars, plasters and screeds making it ideally suited for all types of 'home' concrete and extremely versatile for a wide range of building and civil applications.

The correct proportioning of sand (for mortar or plaster) and sand, stone (for concrete) can be influenced by many factors including the quality of the materials to be used. We strongly recommend that trials are first conducted with the available materials in order to achieve optimum performance. The table overleaf gives a guide to the proportions by volume to be used.

GUIDELINE PROPORTIONS FOR TYPICAL APPLICATIONS (BY VOLUME)				
APPLICATIONS	CEMENT	SAND	STONE	BAGS PER m <sup>2</sup>
<b>HIGH STRENGTH CONCRETE</b> Improved water tightness, columns, slabs and heavy duty industrial floors. <i>25 - 30 MPa</i>	1	2	2	9
<b>MEDIUM STRENGTH CONCRETE</b> Paths, driveways and light-duty floors. <i>20 - 25 MPa</i>	1	2.5	2.5	7.5
<b>LOW STRENGTH CONCRETE</b> Foundations, footings, 'home' concrete; e.g. domestic flooring, steps, paths and fencing. <i>10 - 15 MPa</i>	1	4	4	5
<b>MORTAR (GENERAL PURPOSE)</b> Bricklaying and plastering. <i>5 MPa</i>	1	6		6.5
<b>DRY, LEAN MIXES</b> Brick and block manufacture.	1	8		5



1 Wheelbarrow load of cement  
in volume = 2 x 50kg bags

## CONCRETE PROPERTIES

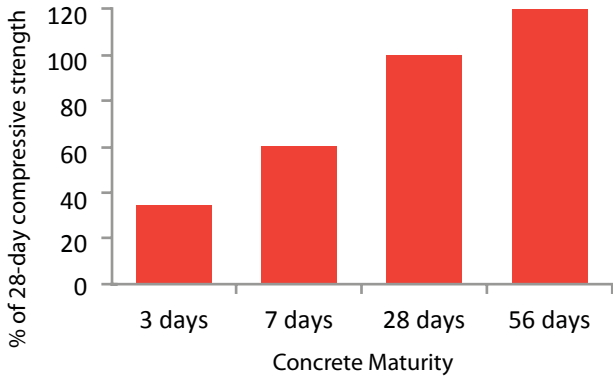
### COMPRESSIVE STRENGTH DEVELOPMENT

When using Sephaku 32 cement in building work there is no substitute for good practice and workmanship. It is important to use the correct materials, measure and mix the materials properly, add the correct amount of water and compact, cure and protect the concrete as appropriate. Particularly in the case of using CEM IV cement, adequate curing is essential.

### SETTING TIMES & WORKABILITY

- Extended setting times may be experienced when using Sephaku 32 cement.
- Due to the addition of high-grade fly ash, concrete produced using Sephaku 32 may require less water to achieve a specified slump or workability when compared to concretes produced with other 32,5 cements.

### CEM IV-B (V) 32,5N



## CURING

Once mixed, use concrete or mortar and plaster immediately. Should more water be added for workability after mixing, more cement should be added to prevent the loss of strength.

### BEST PRACTICE

Curing refers to methods to prevent moisture loss from exposed surfaces of concrete in the first 7 days after casting. The most common and effective methods include:

- Covering with impermeable sheeting
- Ponding with clean water
- Water sprays and/or wet sand
- Spraying with a proprietary curing membrane (preferably pigmented) to ensure full coverage and applied in accordance with the manufacturer's instructions

In concrete, the practice of curing can significantly increase the compressive strength potential as well as reduce the potential for plastic cracking.

## HANDLING & SAFETY

Sephaku 32 general purpose cement is manufactured from natural products and slight shade variations may occur.

Bagged cement that has hardened or is lumpy (as a result of being exposed to moisture) should not be used. Cement is heavy; manual handling of cement without due care and attention could result in personal injury.

Keep a straight back and bend knees when lifting. When handling cement use suitable protective clothing, boots, gloves and eye protection. In case of contact with eyes, rinse eyes with plenty of clean water for 15 minutes and seek medical attention if irritation persists. Cement is classified as an irritant.

Use a suitable dust/face mask when working with cement. Repeated inhalation of cement dust can cause breathing difficulties.

# Sephaku 42,5N

## For The More Serious Builder

42,5 Strength class Portland cement suitable for general purpose applications

### GENERAL INFORMATION

**Sephaku 42** is a type CEM IV/A (V) 42,5N general purpose cement and fully complies with the requirements for a strength class **42,5N** in the South African National Standard 50197-1.

The 'N' denotes normal strength gain and the addition of high-grade cement extenders ensures professional quality and less water to produce a cohesive mix and long-term durability.

For more specialised structural concrete applications, the use of **Sephaku 42,5R** or **Sephaku 52,5N** should be considered.

### AVAILABILITY

Sephaku 42 is available in 50 kg bags and bulk throughout South Africa.

### STORAGE

Sephaku 42 should be stored in unopened bags, clear of the ground in cool, dry conditions where possible. If bags are stacked this should be done in a safe and stable manner. Information on the shelf life/maximum storage time can be found on the bag.

### COMPATIBILITY

Sephaku 42 is compatible with:

- Admixtures that comply with SANS 50934: Chemical admixtures for concrete and mortar. Admixtures should always be used in accordance with the manufacturer's recommendations.
- Fly ashes complying with SANS 50450
- Ground granulated blast furnace slags (GGBS) complying with SANS 55167
- Silica-fume complying with SANS 5013263
- Other cements which comply with SANS 50197-1

### PROPERTIES

Property		SANS 50197-1	Typical Sephaku 42
			CEM IV-A
Setting Time		≥75	220 - 230 mins
ISO Mortar Prism Compressive Strength	2 days	10 MPa	18 - 20 MPa
	7 days	n/a	n/a
	28 days	42.5 - 62.5 MPa	45 - 48 MPa
Soundness		≤10 mm	≤3 - 6 mm

All testing is conducted in accordance with SANS 50197-1 test methods at a SANAS accredited laboratory.



### APPLICATIONS

As a 42 strength class cement, Sephaku 42 provides good early and late strength combined with quality and consistency to ensure superior all-round performance.

The features of Sephaku 42 cement make it an extremely versatile and general purpose product for a wide range of concrete, mortar and screed applications. The table overleaf gives a guide to the proportions by volume to be used for a range of concrete and mortar end-uses.

## GUIDELINE PROPORTIONS FOR TYPICAL APPLICATIONS (BY VOLUME)



1 Wheelbarrow load of cement  
in volume = 2 x 50kg bags

APPLICATIONS	CEMENT	SAND	STONE	BAGS PER m <sup>2</sup>
<b>HIGH STRENGTH CONCRETE</b> Improved water tightness, columns, slabs and heavy duty industrial floors. <i>25 - 30 MPa</i>	1	2	2	9
<b>MEDIUM STRENGTH CONCRETE</b> Paths, driveways and light-duty floors. <i>20 - 25 MPa</i>	1	2.5	2.5	7.5
<b>LOW STRENGTH CONCRETE</b> Foundations, footings, 'home' concrete; e.g. domestic flooring, steps, paths and fencing. <i>10 - 15 MPa</i>	1	4	4	5
<b>MORTAR (GENERAL PURPOSE)</b> Bricklaying and plastering.	1	6		6.5
<b>DRY, LEAN MIXES</b> Brick and block manufacture.	1	8		5

## CONCRETE PROPERTIES

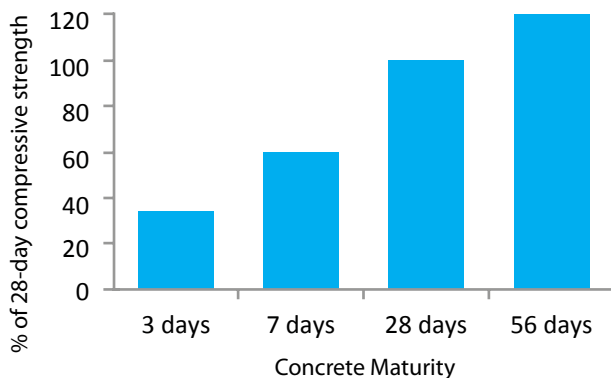
### COMPRESSIVE STRENGTH DEVELOPMENT

When using Sephaku 42 cement in building work, there is no substitute for good practice and workmanship. It is important to use the correct materials, measure and mix the materials properly, add the correct amount of water, and compact, cure and protect the concrete as appropriate. 28-Day concrete strengths, with correct mix design and adequate curing, will be similar to Portland cement concretes.

### SETTING TIMES & WORKABILITY

- Extended setting times may be experienced when using our 'N' type 42 cement compared to our 'R' type 42.
- Due to addition of cement extenders, concrete produced using Sephaku 42 may require less water to achieve a specified slump or workability when compared to concretes produced with other 42,5 cements.

### CEM IV-A (V) 42,5N



## CURING

Once mixed, use concrete or mortar/plaster immediately. Should more water be added for workability after mixing, more cement should be added to prevent the loss of strength.

### BEST PRACTICE

Curing refers to methods to prevent moisture loss from exposed surfaces of concrete in the first 7 days after casting. The most common and effective methods include:

- Covering with impermeable sheeting
- Ponding with clean water
- Water sprays and/or wet sand
- Spraying with a proprietary curing membrane (preferably pigmented) to ensure full coverage and applied in accordance with the manufacturer's instructions

In concrete, the practice of curing can significantly increase the compressive strength potential as well as reduce the potential for plastic cracking.

## HANDLING & SAFETY

Sephaku 42 general purpose cement is manufactured from natural products and slight shade variations may occur.

Bagged cement that has hardened or is lumpy (as a result of being exposed to moisture) should not be used.

Cement is heavy; manual handling of cement without due care and attention could result in personal injury. Keep a straight back and bend knees when lifting.

When handling cement use suitable protective clothing, boots, gloves and eye protection. In case of contact with eyes, rinse eyes with plenty of clean water for 15 minutes and seek medical attention if irritation persists. Cement is classified as an irritant. Use a suitable dust/face mask when working with cement. Repeated inhalation of cement dust can cause breathing difficulties.

# Sephaku 42,5R

## The Extreme Performance Product

42,5 Strength class Portland fly-ash cement suitable for a wide range of general civil, building and concrete industry applications

### GENERAL INFORMATION

**Sephaku 42** is a type CEM II/A (V) 42,5R early strength cement and is manufactured to fully conform to the requirements of strength class **42,5R** in accordance with SANS 50197-1.

**Sephaku 42** is rated 'R' in terms of early strength development which makes it ideally suited where faster demoulding or striking/stripping of formwork is beneficial.

Portland-fly ash cement concretes, designed for the same strength as Portland cement concrete, will continue to gain additional strength to 90 days, provided adequate curing is given to the concrete.

### AVAILABILITY

Sephaku 42 is available in 50 kg bags and bulk throughout South Africa.

### STORAGE

Sephaku 42 should be stored in unopened bags, clear of the ground in cool dry conditions where possible. If bags are stacked this should be done in a safe and stable manner. Information on the shelf life/maximum storage time can be found on the bag.

### COMPATIBILITY

Sephaku 42 is compatible with:

- Admixtures that comply with SANS 50934: Chemical admixtures for concrete and mortar. Admixtures should always be used in accordance with the manufacturer's recommendations.
- Fly ashes complying with SANS 50450
- Ground granulated blast furnace slags (GGBS) complying with SANS 55167
- Silica-fume complying with SANS 5013263
- Other cements which comply to SANS 50197-1

### PROPERTIES

Property		SANS 50197-1	Typical Sephaku 42
			CEM II A-V
Setting Time		≥60 mins	175 - 280 mins
ISO Mortar Prism Compressive Strength	2 days	20 MPa	24 MPa
	7 days	n/a	n/a
	28 days	42.5 - 62.5 MPa	54.0 MPa
Soundness		≤10 mm	3 - 6 mm
Fly Ash Content		6 - 20 %	12 - 15 %

All testing is conducted in accordance with SANS 50197-1 test methods at a SANAS accredited laboratory.



### APPLICATIONS

The features of Sephaku 42 cement make it a multi-purpose product for a wide range of concrete, mortar and screed applications, including precast concrete products, ready-mixed concrete, building and civil engineering.

Sephaku 42 should be mixed with sand for mortar and plaster work and with sand and stone for low- to high-strength concretes.

Sephaku 42 can be used in conjunction with mineral additives, chemical admixtures and pigments to extend the properties and uses of concrete, mortar and plaster. Sephaku 42 is also recommended for use in concrete where moderately low heat and the enhanced durability made possible by the use of siliceous fly ash is required

Sephaku 42 offers a degree of sulphate resistance in certain ground conditions.

The table overleaf gives a guide to the proportions by volume to be used.

GUIDELINE PROPORTIONS FOR TYPICAL APPLICATIONS (BY VOLUME)				
APPLICATIONS	CEMENT	SAND	STONE	BAGS PER m <sup>2</sup>
<b>HIGH STRENGTH CONCRETE</b> Improved water tightness, columns, slabs and heavy duty industrial floors. <i>25 - 30 MPa</i>	1	3	3	6.5
<b>MEDIUM STRENGTH CONCRETE</b> Paths, driveways and light-duty floors. <i>20 - 25 MPa</i>	1	3.5	3.5	6
<b>LOW STRENGTH CONCRETE</b> Foundations, footings, 'home' concrete; e.g. domestic flooring, steps, paths and fencing. <i>10 - 15 MPa</i>	1	4.5	4.5	5
<b>MORTAR (GENERAL PURPOSE)</b> Bricklaying and plastering.	1	7		6
<b>DRY, LEAN MIXES</b> Brick and block manufacture.	1	9		5



1 Wheelbarrow load of cement  
in volume = 2 x 50kg bags

## CONCRETE PROPERTIES

### COMPRESSIVE STRENGTH DEVELOPMENT

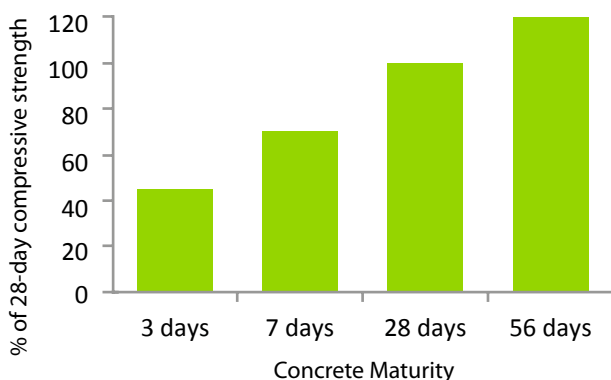
At early ages, Portland flyash cement typically exhibits lower strength development than Portland cements. However, the 'R' rating of Sephaku 42 means that it exhibits the same early strength performance of a Class 52,5 N cement. 28-Day concrete strengths, with correct mix design and adequate curing, will be similar to Portland cement concretes and strength will continue to increase to 90 days and beyond.

The potential strength of any Portland flyash-based product will best develop under conditions where loss of mixing water is minimised during initial hardening.

### SETTING TIMES & WORKABILITY

- The use of Sephaku 42 cement in concrete will typically reduce the water demand of the mix for a given slump. This reduced water demand will offset slower setting times experienced when using Portland-fly ash and other composite cements.
- Concrete made with Sephaku 42 creates a more workable mix using less water, making it easier to place and vibrate.

### CEM II A-V 42,5R



## CURING

Once mixed, use concrete or mortar and plaster immediately. Should more water be added for workability after mixing, more cement should be added to prevent the loss of strength.

### BEST PRACTICE

Curing refers to methods to prevent moisture loss from exposed surfaces of concrete in the first 7 days after casting. The most common and effective methods include:

- Covering with impermeable sheeting
- Ponding with clean water
- Water sprays and/or wet sand
- Spraying with a proprietary curing membrane (preferably pigmented) to ensure full coverage and applied in accordance with the manufacturer's instructions

In concrete, the practice of curing can significantly increase the compressive strength potential as well as reduce the potential for plastic cracking.

## HANDLING & SAFETY

Sephaku 42 Portland flyash cement is manufactured from natural products and slight shade variations may occur.

Bagged cement that has hardened or is lumpy (as a result of being exposed to moisture) should not be used.

Cement is heavy; manual handling of cement without due care and attention could result in personal injury. Keep a straight back and bend knees when lifting. When handling cement use suitable protective clothing, boots, gloves and eye protection. In case of contact with eyes, rinse eyes with plenty of clean water for 15 minutes and seek medical attention if irritation persists. Cement is classified as an irritant.

Use a suitable dust/face mask when working with cement. Repeated inhalation of cement dust can cause breathing difficulties.

# Sephaku 52,5N

## The Professional High-Strength Product

52,5 Strength class Portland cement suitable for specific applications

### GENERAL INFORMATION

**Sephaku 52** is a type CEM I 52,5N high-performance cement and is manufactured to comply with the requirements for a strength class **52,5N** in accordance with SANS 50197-1.

**Sephaku 52** is suitable for use with cement extenders, e.g. fly ash, GGBS (Blast Furnace Slag) and Silica Fume to enhance the properties and uses of concretes.

### AVAILABILITY

Sephaku 52 is available in 50 kg bags and bulk throughout South Africa.

### STORAGE

Sephaku 52 should be stored in unopened bags, clear of the ground in cool dry conditions where possible. If bags are stacked this should be done in a safe and stable manner. Information on the shelf life/ maximum storage time can be found on the bag.

### COMPATIBILITY

Sephaku 52 is compatible with:

- Admixtures that comply with SANS 50934: Chemical Admixtures for concrete and mortar. Admixtures should always be used in accordance with the manufacturer's recommendations
- Fly ashes complying with SANS 50450
- Ground granulated blast furnace slags (GGBS) complying with SANS 55167
- Silica-fume complying with SANS 5013263
- Other cements which comply with SANS 50197-1

### PROPERTIES

Property		SANS 50197-1	Typical Sephaku 52
			CEM I
Setting Time		≥45 mins	170 mins
ISO Mortar Prism Compressive Strength	2 days	≥20 MPa	27 MPa
	7 days	n/a	n/a
	28 days	≥52,5 MPa	± 58 MPa
Soundness		≤10 mm	1 mm
Densities	relative density		± 3.05
	loose bulk density Kgm <sup>3</sup>		1100 -1200

All testing is conducted in accordance with SANS 50197-1 test methods at a SANAS accredited laboratory.



### APPLICATIONS

Sephaku 52 is particularly suited for civil engineering and structural concrete applications. These applications include:

- High-strength concrete, precasting and ready-mix
- Water-tight, structural and pre-stressed concretes
- Day-one strength and cold-weather concreting
- Fast track construction projects to allow early form work stripping/striking
- Precision grouts, repairs and formulated cement products



GUIDELINE PROPORTIONS FOR TYPICAL APPLICATIONS (BY VOLUME)				
APPLICATIONS	CEMENT	SAND	STONE	BAGS PER m <sup>2</sup>
<b>WATERTIGHT CONCRETE &amp; EARLY STRIKING OF FORMWORK</b>	1	2.5	2.5	7
<b>HIGH STRENGTH CONCRETE</b> Improved durability, columns, slabs and heavy duty industrial floors. ≥30 MPa	1	3	3	6.5
<b>MEDIUM STRENGTH CONCRETE</b> Paths, driveways and light-duty floors. 20 - 30 MPa	1	4	4	5
<b>DRY, LEAN MIXES</b> Brick and block manufacture.	1	10		4.5

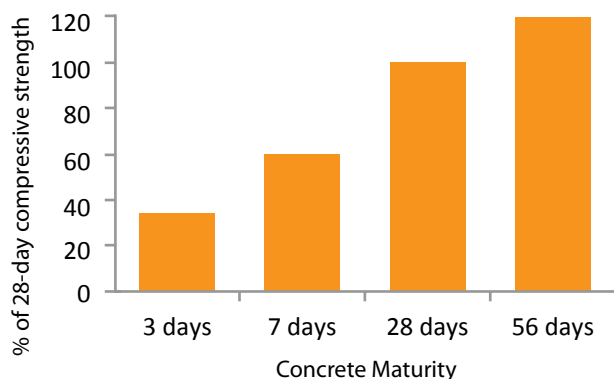


## CONCRETE PROPERTIES

### COMPRESSIVE STRENGTH DEVELOPMENT

Sephaku 52 exhibits extremely consistent strengths meeting all the conformity criteria in SANS 50197-1. Typical prism strength values of 27 MPa and 58 MPa, at 2 and 28 days respectively, confirm the products notation as a CEM I 52,5N strength class cement. Concrete, mortars and grout made with Sephaku 52 must be specified and used correctly for best performance. Compressive strength development in Portland cement concrete is affected by a number of factors such as the physical and chemical properties of the cement, water: cement ratio, admixtures, curing and environmental conditions. Where applicable, satisfactory placing and thorough compaction also play their part to ensure concrete reaches its strength potential. With its high fineness and unique particle size distribution, Sephaku 52 reacts quickly with the water in a concrete mix, increasing the rate of hydration, resulting in both high early and late age strength development.

### CEM I 52,5N



### SETTING TIMES & WORKABILITY

In accordance with SANS requirements the initial setting time of a class 52,5N cement is ≥ 45 minutes. Typical initial setting time performance of Sephaku 52 is +/- 170 minutes. Sephaku 52 is thus engineered to enable sufficient workability retention time in a concrete mix without the need to add more water for workability and placing. Once final set has taken place concrete produced with Sephaku 52 rapidly gains strength making it particularly suited for early formwork stripping, fast track construction and cold weather concreting.

## CURING

Once mixed, use concrete or mortar and plaster immediately. Should more water be added for workability after mixing, more cement should be added to prevent the loss of strength.

### BEST PRACTICE

Curing refers to methods to prevent moisture loss from exposed surfaces of concrete in the first 7 days after casting. The most common and effective methods include:

- Covering with impermeable sheeting
- Ponding with clean water
- Water sprays and/or wet sand
- Spraying with a proprietary curing membrane (preferably pigmented) to ensure full coverage and applied in accordance with the manufacturer's instructions

In concrete, the practice of curing can significantly increase the compressive strength potential as well as reduce the potential for plastic cracking.

## HANDLING & SAFETY

Sephaku 52 high performance cement is manufactured from natural products and slight shade variations may occur.

Bagged cement that has hardened or is lumpy (as a result of being exposed to moisture) should not be used. Cement is heavy; manual handling of cement without due care and attention could result in personal injury.

Keep a straight back and bend knees when lifting. When handling cement use suitable protective clothing, boots, gloves and eye protection. In case of contact with eyes, rinse eyes with plenty of clean water for 15 minutes and seek medical attention if irritation persists. Cement is classified as an irritant.

Use a suitable dust/face mask when working with cement. Repeated inhalation of cement dust can cause breathing difficulties.

**TABLE 1: COMPRESSIVE STRENGTH REQUIREMENTS OF SANS 50197-1**

Strength class	Compressive Strength, MPa			
	Early strength		Standard strength	
	2 days	7 days	28 days	
32,5N	-	≥ 16,0	≥ 32,5	≤ 52,5
32,5R	≥ 10,0	-		
42,5N	≥ 10,0	-	≥ 42,5	≤ 62,5
42,5R	≥ 20,0	-		
52,5N	≥ 20,0	-	≥ 52,5	-
52,5R	≥ 30,0	-		

**TABLE 2: COMMON CEMENTS: SANS 50197-1**

Main types	Notation of products (types of common cement)		Composition, percentage by mass <sup>(a)</sup>										Minor additional constituents	
			Clinker K	Blast-furnace slag S	Silica fume D <sup>b</sup>	Pozzolana		Fly ash		Burnt shale T	Limestone			
						Natural P	Natural calcined Q	Siliceous V	Calcareous W		L	LL		
CEM I	Portland cement	CEM I	95 - 100	-	-	-	-	-	-	-	-	-	-	0-5
CEM II	Portland-slag cement	CEM II A-S	80 - 94	6 - 20	-	-	-	-	-	-	-	-	-	0-5
		CEM II B-S	65 - 79	21 - 35	-	-	-	-	-	-	-	-	-	0-5
	Portland-silica fume cement	CEM II A-D	90 - 94	-	6 - 10	-	-	-	-	-	-	-	-	0-5
	Portland-pozzolana cement	CEM II A-P	80 - 94	-	-	6 - 20	-	-	-	-	-	-	-	0-5
		CEM II B-P	65 - 79	-	-	21 - 35	-	-	-	-	-	-	-	0-5
		CEM II A-Q	80 - 94	-	-	-	6 - 20	-	-	-	-	-	-	0-5
		CEM II B-Q	65 - 79	-	-	-	21 - 35	-	-	-	-	-	-	0-5
	Portland-fly ash cement	CEM II A-V	80 - 94	-	-	-	-	6 - 20	-	-	-	-	-	0-5
		CEM II B-V	65 - 79	-	-	-	-	21 - 35	-	-	-	-	-	0-5
		CEM II A-W	80 - 94	-	-	-	-	-	6 - 20	-	-	-	-	0-5
		CEM II B-W	65 - 79	-	-	-	-	-	21 - 35	-	-	-	-	0-5
	Portland-burnt shale cement	CEM II A-T	80 - 94	-	-	-	-	-	-	6 - 20	-	-	-	0-5
		CEM II B-T	65 - 79	-	-	-	-	-	-	21 - 35	-	-	-	0-5
	Portland-limestone cement	CEM II A-L	80 - 94	-	-	-	-	-	-	-	6 - 20	-	-	0-5
		CEM II B-L	65 - 79	-	-	-	-	-	-	-	21 - 35	-	-	0-5
		CEM II A-LL	80 - 94	-	-	-	-	-	-	-	-	6 - 20	-	0-5
CEM II B-LL		65 - 79	-	-	-	-	-	-	-	-	21 - 35	-	0-5	
Portland-composite cement <sup>(c)</sup>	CEM II A-M	80 - 88	←—————→		—————		12 - 20	—————→		—————		-	0-5	
	CEM II B-M	65 - 79	←—————→		—————		21 - 35	—————→		—————		-	0-5	
CEM III	Blast furnace cement	CEM III A	35 - 64	36 - 65	-	-	-	-	-	-	-	-	0-5	
		CEM III B	20 - 34	66 - 80	-	-	-	-	-	-	-	-	0-5	
		CEM III C	5 - 19	81 - 95	-	-	-	-	-	-	-	-	0-5	
CEM IV	Pozzolanic cement <sup>(c)</sup>	CEM IV A	65 - 89	-	←—————→		11 - 35	—————→		-	-	-	0-5	
		CEM IV B	45 - 64	-	←—————→		36 - 55	—————→		-	-	-	0-5	
CEM V	Composite cement <sup>(c)</sup>	CEM V A	40 - 64	18 - 30	-	←—————→		18 - 30	—————→		-	-	0-5	
		CEM V B	20 - 38	31 - 49	-	←—————→		31 - 49	—————→		-	-	0-5	

**Notes**

- (a) The values in the table refer to the sum of the main and minor additional constituents.
- (b) The proportion of silica fume is limited to 10%.
- (c) In Portland-composite cements CEM II A-M and CEM II B-M, in pozzolanic cements CEM IV A and CEM IV B, and in composite cements CEM V A and CEM V B, the main constituents other than clinker shall be declared by designation of the cement.

# BUILDING PROSPERITY IN SOUTH AFRICA

*"Sephaku Cement, powered by Dangote Cement, is the partner of choice for those building South Africa."*



Powered By



Sephaku Cement, powered by Dangote Cement, is CHANGING THE GENETIC CODE OF CEMENT IN SOUTH AFRICA. With the most high-tech plants in the country turning its turbines, it has injected fast, strong and confident DNA into an ageing sector. The roots of South Africa's first new clinker producer since 1934 date back to 2006 when its hugely successful Greenfields project commenced.

Today, as a 36% associate company of Sephaku Holdings, we are immensely proud to stand side by side with Dangote Cement, which is **AFRICA'S FASTEST GROWING INDUSTRIAL** company.

Sephaku Cement is committed to being the sub-Saharan driver of Dangote Cement's bold vision to build prosperity in Africa. As a 64%-owned subsidiary of the company, customers gain access to a range of benefits, which are unlocked as a direct result of being part of a truly pan-African manufacturer and distributor of cement, including:

- Proven success through efficient production facilities in strategic locations close to key growth markets;
- The operation of modern plants in exciting growth markets; and,
- High-quality products at affordable prices, backed by excellent customer service.

Sephaku's operations include a 6,000-ton per day flagship clinker facility located near Lichtenburg in the North West Province, a cement milling plant in Delmas, Mpumalanga, and Sephaku Ash, producing close to 1.3 million tons of ash annually. Its plants run on the latest cement production technology equipment and, critically, do not emit more than 30mg of particulate matter per cubic metre of normal air.

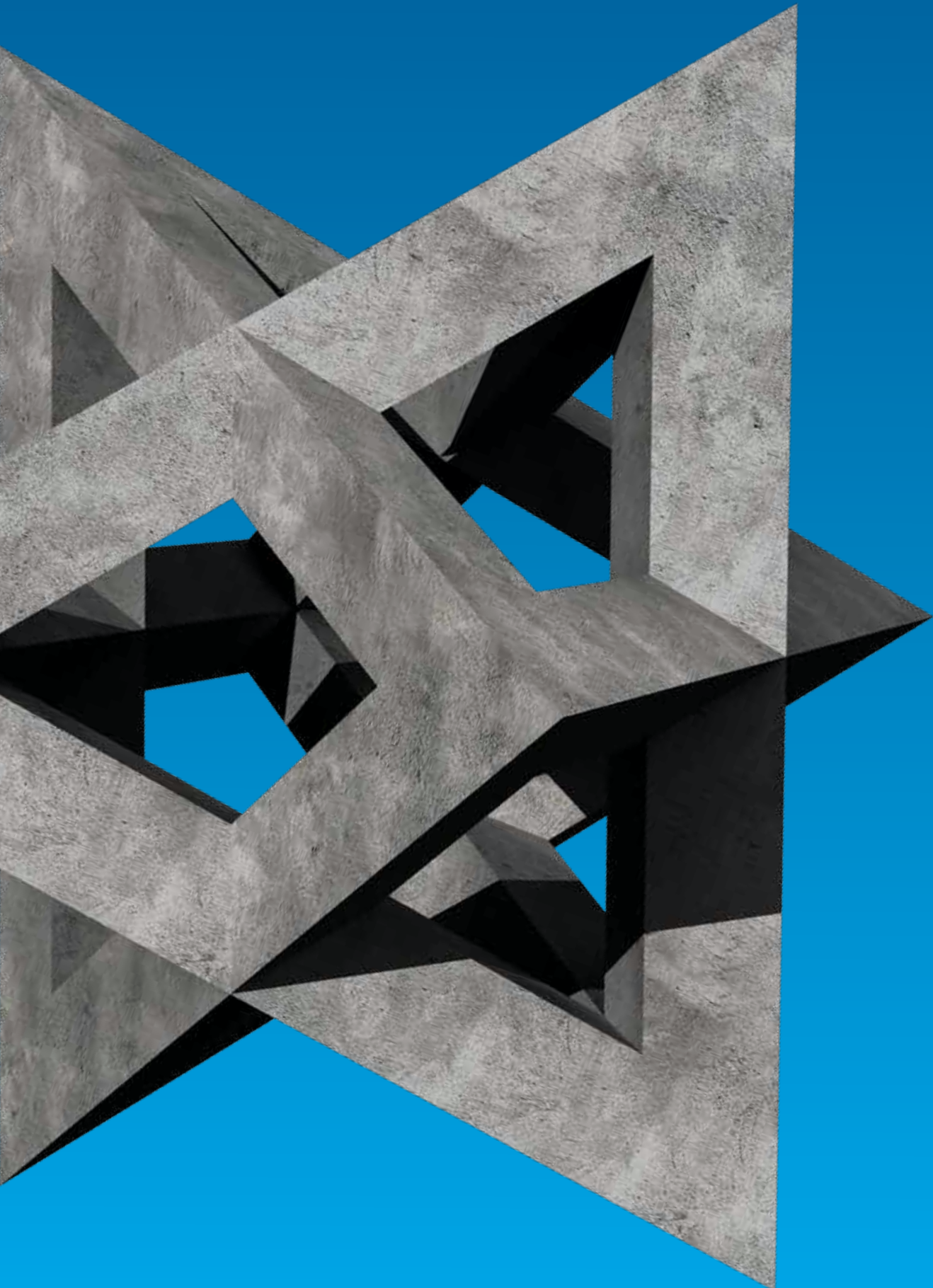
With a positive impact on cost and environmental management efficiencies, its operations are in the region of 30-40% more efficient through, amongst other factors, installation of new vertical roller mill technology for all milling requirements. Embedded in these impressive plants, operational and process efficiency and customer-centric service, Sephaku Cement confidently stakes its claim as one of the continent's most proficient producers of integrated cement and clinkers.

**Pieter Fourie, Chief Executive Officer,  
Sephaku Cement**

\*Sephaku 52 only available in bulk

Call us on 0861 32 42 52 [www.sephakucement.co.za](http://www.sephakucement.co.za)





**Customer Services Call Centre**  
0861 32 42 52

**Technical Assistance**  
technical@sepcem.co.za

**Sephaku Cement**  
Block A Southdowns Office Park  
Corner John Vorster & Karee St  
Irene X54, 0062

[www.sephakucement.co.za](http://www.sephakucement.co.za)