

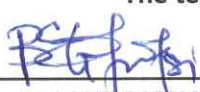
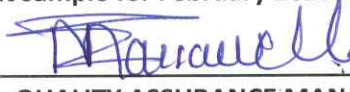


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 01/04/2023

CERTIFICATE OF CHEMICAL & PHYSICAL TESTS (SIMBA Brand Portland Composite Cement)

Sampled and tested in accordance with the requirements of Tanzania Bureau of Standards 'No. TZS 760'

PARAMETER	TEST RESULTS	SPECIFICATION
		TZS 727-1 = EN 197-1
CHEMICAL TESTS:		
		CEM II/B-M 32.5N
Loss on Ignition (%)	9.82	
SiO ₂ (%)	17.70	
Al ₂ O ₃ (%)	5.32	
Fe ₂ O ₃ (%)	3.31	
CaO (%)	60.41	
MgO (%)	0.70	5.0 Max.
SO ₃ (%)	2.09	3.5 Max.
K ₂ O (%)	0.07	
Na ₂ O (%)	0.07	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.45	
P ₂ O ₅ (%)	0.05	
Total (%)	100.00	
PHYSICAL TESTS:		
Insoluble Residue (IR) (%)	2.59	
C3A (%)	8.50	
Free lime (CaO _f) (%)	2.20	
Air permeability - Blaine (cm ² /g)	4215	
Compressive Strength (N/mm ²):		
ISO 7days	27.3	≥16 N/mm ²
ISO 28days	36.8	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	113	≥75 Minutes
Final setting (minutes)	148	-
Expansion (Lechatelier's) (mm)	1.0	10 Max.
REMARKS: The average temperature during the test did not exceed 22°C; corresponding to 71.6°F. The test results shown are monthly composite cement sample for February 2023.		
 PLANT MANAGER	 QUALITY ASSURANCE MANAGER	

TANGA CEMENT PLC

Head Office: Pongwe Factory Area, P O Box 5053, Tanga, Tanzania
Tel: +255 27 2644 500-2 / 2610 600 / 784 644 500, Fax: +255 27 2646 148 / 2646 425

Directors: P Rutabanzibwa (Chairperson)*, R Swart (Managing)***, P de Jager (CFO)***, K Omar*, R Mbilinyi*

Company Secretary: Quresh Ganijee *

*Tanzanian. ** South African



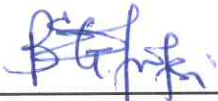
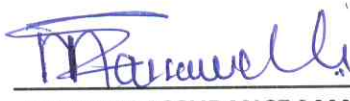


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 01/04/2023

CERTIFICATE OF CHEMICAL & PHYSICAL TESTS (SIMBA Brand Portland Composite Cement)

Sampled and tested in accordance with the requirements of Tanzania Bureau of Standards 'No. TZS 760'

PARAMETER	TEST RESULTS	SPECIFICATION
		TZS 727-1 = EN 197-1
		CEM II/B-M 32.5R
CHEMICAL TESTS:		
Loss on Ignition (%)	9.41	
SiO ₂ (%)	17.51	
Al ₂ O ₃ (%)	5.21	
Fe ₂ O ₃ (%)	3.22	
CaO (%)	61.23	
MgO (%)	0.70	5.0 Max.
SO ₃ (%)	2.05	3.5 Max.
K ₂ O (%)	0.08	
Na ₂ O (%)	0.07	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.44	
P ₂ O ₅ (%)	0.07	
Total (%)	100.00	
Insoluble Residue (IR) (%)	2.55	
C3A (%)	8.36	
Freelime (CaO _f) (%)	2.10	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4290	
Compressive Strength (Mpa):	ISO 2days	14.3
	ISO 7days	29.1
	ISO 28days	37.8
		≥10 N/mm ²
		-
		≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	116	≥75 Minutes
Final setting (minutes)	141	-
Expansion (Lechatelier's) (mm)	1.0	10 Max.
REMARKS: The average temperature during the test did not exceed 22°C; corresponding to 71.6°F. The test results shown are monthly composite cement sample for February 2023.		
 _____ PLANT MANAGER		 _____ QUALITY ASSURANCE MANAGER

TANGA CEMENT PLC

Head Office: Pongwe Factory Area, P O Box 5053, Tanga, Tanzania
Tel : +255 27 2644 500-2 / 2610 600 / 784 644 500, Fax :+255 27 2646 148 / 2646 425

Directors: P Rutabanzibwa (Chairperson)*, R Swart (Managing)***, P de Jager (CFO)***, K Omar *, R Mbilinyi*

Company Secretary: Quresh Ganijee *

* Tanzanian. ** South African





SIMBA
CEMENT
STRENGTH WITHIN

DATE: 01/04/2023

CERTIFICATE OF CHEMICAL & PHYSICAL TESTS (SIMBA Brand Portland Limestone Cement)

Sampled and tested in accordance with the requirements of Tanzania Bureau of Standards 'No. TZS 760'

PARAMETER	TEST RESULTS	SPECIFICATION	
		TZS 727-1 = EN 197-1 CEM II/A-L 42.5N	
CHEMICAL TESTS:			
Loss on Ignition (%)	9.11		
SiO ₂ (%)	17.88		
Al ₂ O ₃ (%)	5.08		
Fe ₂ O ₃ (%)	3.21		
CaO (%)	61.31		
MgO (%)	0.66	5.0 Max.	
SO ₃ (%)	2.16	3.5 Max.	
K ₂ O (%)	0.04		
Na ₂ O (%)	0.05		
Cl (%)	0.01	0.1 Max	
TiO ₂ (%)	0.43		
P ₂ O ₅ (%)	0.06		
Total (%)	100.00		
Insoluble Residue (IR) (%)	2.48		
C3A (%)	8.04		
Free lime (CaO _f) (%)	1.94		
PHYSICAL TESTS:			
Air permeability - Blaine (cm ² /g)	4398		
Compressive Strength (Mpa):	ISO 2days	17.7	≥10 N/mm ²
	ISO 7days	34.7	-
	ISO 28days	47.8	≥42.5 N/mm ² ; ≤62.5 N/mm ²
Vicat test: Initial setting (minutes)	121	≥60 Minutes	
Final setting (minutes)	138	-	
Expansion (Lechatelier's) (mm)	1.0	10 Max.	
Specific gravity (g/cc)	3.16		

REMARKS: The average temperature during the test did not exceed 22°C; corresponding to 71.6°F.
The test results shown are monthly composite cement sample for February 2023.

PLANT MANAGER

QUALITY ASSURANCE MANAGER

TANGA CEMENT PLC

Head Office:

Pongwe Factory Area, P O Box 5053, Tanga, Tanzania
Tel : +255 27 2644 500-2 / 2610 600 / 784 644 500, Fax :+255 27 2646 148 / 2646 425

Directors:

P Rutabanzibwa (Chairperson)*, R Swart (Managing)***, P de Jager (CFO)***, K Omar *,
R Mbilinyi*

Company Secretary:

Quresh Ganijee *

