


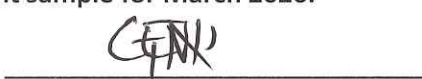


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 04/05/2020

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 (%)	8.40	
SiO ₂ (%)	20.89	
Al ₂ O ₃ (%)	5.38	
Fe ₂ O ₃ (%)	3.58	
CaO (%)	56.20	
MgO (%)	1.58	5.0 Max.
SO ₃ (%)	1.22	3.5 Max.
K ₂ O (%)	0.20	
Na ₂ O (%)	0.24	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.58	
P ₂ O ₅ (%)	0.13	
Total (%)	99.91	
C3A (%)	8.21	
Freelime (CaO _f) (%)	1.50	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4936	
Compressive Strength (N/mm ²):		-
ISO 7days	24.6	≥16 N/mm ²
ISO 28days	35.6	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	140	≥75 Minutes
Final setting (minutes)	177	-
Expansion (Lechatelier's) (mm)	2.0	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 March 2020.		
 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:

L. Masha~ (Chairperson), P Rutabanzibwa~ (Deputy Chairperson), R Swart (Managing)**,
P de Jager (CFO)**, K Omar~, Rob Wessels**, T Wagner**, R Mbiliyi~

Company Secretary:

Quresh Ganijee

**South African,

~ Independent Non-executive

Non-executive



SIMBA
CEMENT
STRENGTH WITHIN

DATE: 04/05/2020

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 32.5R
Loss on Ignition (%)	7.44	
SiO ₂ (%)	21.55	
Al ₂ O ₃ (%)	5.42	
Fe ₂ O ₃ (%)	3.67	
CaO (%)	55.55	
MgO (%)	1.64	5.0 Max.
SO ₃ (%)	1.23	3.5 Max.
K ₂ O (%)	0.21	
Na ₂ O (%)	0.25	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.63	
P ₂ O ₅ (%)	0.12	
Total (%)	99.24	
Insoluble Residue (IR) (%)	5.33	
C3A (%)	8.16	
Freelime (CaO _f) (%)	1.52	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4877	
Compressive Strength (Mpa): ISO 2days	13.6	≥10 N/mm ²
ISO 7days	25.4	-
ISO 28days	36.5	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	128	≥75 Minutes
Final setting (minutes)	152	-
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 March 2020.		
		
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: L. Masha~ (Chairperson), P. Rutabanzibwa~ (Deputy Chairperson), R. Swart (Managing)**,
P. de Jager (CFO)**, K. Omar~, Rob Wessels**, T. Wagner**, R. Mbilinyi~

Company Secretary: Quresh Ganijee

**South African, ~ Independent Non-executive # Non-executive



SIMBA
CEMENT
STRENGTH WITHIN

DATE: 04/05/2020

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
CHEMICAL TESTS:		CEM II/A-L 42.5N
Loss on Ignition (%)	9.61	
SiO ₂ (%)	18.08	
Al ₂ O ₃ (%)	4.68	
Fe ₂ O ₃ (%)	2.57	
CaO (%)	60.27	
MgO (%)	0.90	5.0 Max.
SO ₃ (%)	1.23	3.5 Max.
K ₂ O (%)	0.14	
Na ₂ O (%)	0.05	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.33	
P ₂ O ₅ (%)	0.03	
Total (%)	99.38	
Insoluble Residue (IR) (%)	4.38	
C3A (%)	8.06	
Freelime (CaO _f) (%)	1.48	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4509	
Compressive Strength (Mpa):	ISO 2days	≥10 N/mm ²
	ISO 7days	-
	ISO 28days	≥42.5 N/mm ² ; ≤62.5 N/mm ²
Vicat test: Initial setting (minutes)	129	≥60 Minutes
Final setting (minutes)	158	-
Expansion (Lechatelier's) (mm)	1.0	10 Max.
Specific gravity (g/cc)	3.0	
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 March 2020.		
 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:

L. Masha~ (Chairperson), P Rutabanzibwa~ (Deputy Chairperson), R Swart (Managing)**,
P de Jager (CFO)**, K Omar~, Rob Wessels#**, T Wagner#**, R Mbilinyi~

Company Secretary:

Quresh Ganijee

**South African, ~ Independent Non-executive # Non-executive