




SIMBA
CEMENT
STRENGTH WITHIN

DATE: 05/01/2021

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 (%)	5.61	
SiO ₂ (%)	20.60	
Al ₂ O ₃ (%)	5.12	
Fe ₂ O ₃ (%)	2.83	
CaO (%)	62.17	
MgO (%)	0.80	5.0 Max.
SO ₃ (%)	2.23	3.5 Max.
K ₂ O (%)	0.15	
Na ₂ O (%)	0.07	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.36	
P ₂ O ₅ (%)	0.05	
Total (%)	100.00	
Insoluble Residue (IR) (%)	2.69	
C3A (%)	8.79	
Freelime (CaO _f) (%)	2.14	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4114	
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)	106	≥60 Minutes
Final setting (minutes)	128	-
Expansion (Lechatelier's) (mm)	2.0	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 November 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: 05/01/2021

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 (%)	6.38	
SiO ₂ (%)	20.45	
Al ₂ O ₃ (%)	5.06	
Fe ₂ O ₃ (%)	2.71	
CaO (%)	61.65	
MgO (%)	0.82	5.0 Max.
SO ₃ (%)	2.31	3.5 Max.
K ₂ O (%)	0.14	
Na ₂ O (%)	0.07	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.35	
P ₂ O ₅ (%)	0.05	
Total (%)	100.00	
Insoluble Residue (IR) (%)	3.13	
C3A (%)	8.83	
Freelime (CaO _f) (%)	2.34	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3951	
Compressive Strength (Mpa):	ISO 2days	14.0
	ISO 7days	26.9
	ISO 28days	45.1
		≥10 N/mm ²
		-
		≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	126	≥75 Minutes
Final setting (minutes)	128	-
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 November 2020.		
 PLANT MANAGER		 QUALITY ASSURANCE MANAGER



TANGA CEMENT PLC

Dar es Salaam Office: Rooftop, Coco Plaza, 254 Toure Drive, P O Box 78478, Dar es Salaam, Tanzania
Tel : +255 22 2602 778-9 / 2602 784, Fax : +255 22 2602 785, www.simbacement.co.tz

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

Company Secretary: Quresh Ganjee

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




SIMBA
CEMENT
STRENGTH WITHIN

DATE: 05/01/2021

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 (%)	6.32	
SiO ₂ (%)	20.39	
Al ₂ O ₃ (%)	5.10	
Fe ₂ O ₃ (%)	2.93	
CaO (%)	60.90	
MgO (%)	0.90	5.0 Max.
SO ₃ (%)	2.18	3.5 Max.
K ₂ O (%)	0.16	
Na ₂ O (%)	0.04	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.40	
P ₂ O ₅ (%)	0.07	
Total (%)	99.40	
Insoluble Residue (IR) (%)	3.24	
C3A (%)	8.56	
Freelime (CaO _f) (%)	2.12	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3936	
Compressive Strength (N/mm ²):		-
ISO 7days	26.6	≥16 N/mm ²
ISO 28days	44.2	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	121	≥75 Minutes
Final setting (minutes)	161	-
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 November 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 Ganjee

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