

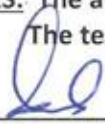
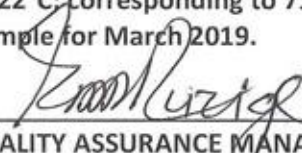


SIMBA
CEMENT
STRENGTH WITHIN

DATE OF ISSUE: 02/05/2019

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 : 2002'

PARAMETER	TEST RESULTS	SPECIFICATION
		TZS 727-1:2002 = EN 197-1:2000 CEM II/B-M 32.5N
CHEMICAL TESTS:		
Loss on Ignition (%)	9.61	
SiO ₂ (%)	20.57	
Al ₂ O ₃ (%)	4.94	
Fe ₂ O ₃ (%)	2.92	
CaO (%)	59.69	
MgO (%)	0.91	5.0 Max.
SO ₃ (%)	1.82	3.5 Max.
K ₂ O (%)	0.14	
Na ₂ O (%)	0.05	
Cl (%)	0.01	0.1 Max
Total (%)	100.65	
C3A (%)	8.16	
Freelime (CaO _f) (%)	1.81	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4686	
Compressive Strength (N/mm ²):		
ISO 7days	23.9	≥16 N/mm ²
ISO 28days	35.3	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	100	≥75 Minutes
Final setting (minutes)	220	-
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 2019.		
 PLANT MANAGER	 QUALITY ASSURANCE MANAGER	



TANGA CEMENT PLC

Head Office:

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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

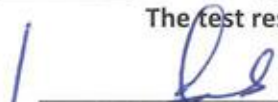
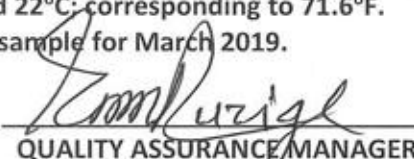


SIMBA
CEMENT
STRENGTH WITHIN

DATE OF ISSUE: 02/05/2019

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 : 2002'

PARAMETER	TEST RESULTS	SPECIFICATION
		TZS 727-1:2002 = EN 197-1:2000
CHEMICAL TESTS:		CEM II/B-M 32.5R
Loss on Ignition (%)	9.54	
SiO ₂ (%)	19.72	
Al ₂ O ₃ (%)	4.71	
Fe ₂ O ₃ (%)	3.10	
CaO (%)	58.99	
MgO (%)	0.99	5.0 Max.
SO ₃ (%)	2.06	3.5 Max.
K ₂ O (%)	0.15	
Na ₂ O (%)	0.08	
Cl (%)	0.01	0.1 Max
Total (%)	99.34	
Insoluble Residue (IR) (%)	5.38	
C3A (%)	7.24	
Freelime (CaO _f) (%)	2.05	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4578	
Compressive Strength (Mpa): ISO 2days	13.5	≥10 N/mm ²
ISO 7days	25.0	-
ISO 28days	36.3	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	100	≥75 Minutes
Final setting (minutes)	220	-
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 2019.		
 PLANT MANAGER		 QUALITY ASSURANCE MANAGER



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P de Jager (CFO)**, K Omar--, Rob Wessels**, T Wagner**, R Mbilinyi--

Company Secretary: Quresh Ganjee

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


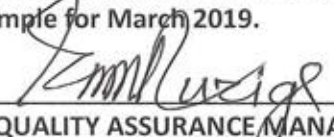


SIMBA
CEMENT
STRENGTH WITHIN

DATE OF ISSUE: 02/05/2019

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 : 2002''

PARAMETER	TEST RESULTS	SPECIFICATION
		TZS 727-1:2002 = EN 197-1:2000
CHEMICAL TESTS:		CEM II/A-L 42.5N
Loss on Ignition (%)	7.36	
SiO ₂ (%)	19.95	
Al ₂ O ₃ (%)	4.71	
Fe ₂ O ₃ (%)	2.84	
CaO (%)	61.90	
MgO (%)	0.70	5.0 Max.
SO ₃ (%)	1.93	3.5 Max.
K ₂ O (%)	0.12	
Na ₂ O (%)	0.03	
Cl (%)	0.01	0.1 Max
Total (%)	99.54	
Insoluble Residue (IR) (%)	4.68	
C3A (%)	7.68	
Freelime (CaO _f) (%)	2.35	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4384	
Compressive Strength (Mpa): ISO 2days	18.6	≥10 N/mm ²
ISO 7days	29.7	-
ISO 28days	50.7	≥42.5 N/mm ² ; ≤62.5 N/mm ²
Vicat test: Initial setting (minutes)	100	≥60 Minutes
Final setting (minutes)	185	-
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 2019.		
		
PLANT MANAGER		QUALITY ASSURANCE MANAGER



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Company Secretary: Quresh Ganijee

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