

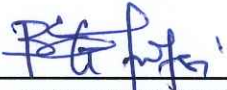
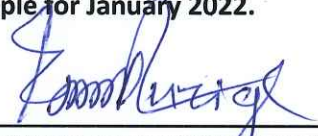


**SIMBA
CEMENT**
STRENGTH WITHIN

DATE: 07/03/2022

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 (%)	7.15	
SiO ₂ (%)	19.03	
Al ₂ O ₃ (%)	5.51	
Fe ₂ O ₃ (%)	2.82	
CaO (%)	61.53	
MgO (%)	0.81	5.0 Max.
SO ₃ (%)	2.35	3.5 Max.
K ₂ O (%)	0.12	
Na ₂ O (%)	0.25	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.38	
P ₂ O ₅ (%)	0.04	
Total (%)	100.00	
Insoluble Residue (IR) (%)	2.66	
C3A (%)	9.84	
Freelime (CaO _f) (%)	2.04	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4140	
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)	122	≥60 Minutes
Final setting (minutes)	138	-
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 January 2022.		
 _____ 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**, R. Mbilinyi*

Company Secretary:

Quresh Ganijee*

*Tanzanian, **South African

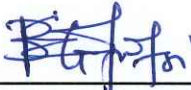
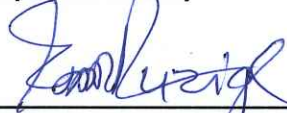


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 07/03/2022

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 (%)		7.61	
SiO ₂ (%)		18.79	
Al ₂ O ₃ (%)		5.48	
Fe ₂ O ₃ (%)		2.83	
CaO (%)		61.41	
MgO (%)		0.85	5.0 Max.
SO ₃ (%)		2.25	3.5 Max.
K ₂ O (%)		0.12	
Na ₂ O (%)		0.24	
Cl (%)		0.12	0.1 Max
TiO ₂ (%)		0.37	
P ₂ O ₅ (%)		0.04	
Total (%)		100.00	
Insoluble Residue (IR) (%)		2.96	
C3A (%)		9.74	
Freelime (CaO _f) (%)		1.84	
PHYSICAL TESTS:			
Air permeability - Blaine (cm ² /g)		4052	
Compressive Strength (Mpa):	ISO 2days	14.0	≥10 N/mm ²
	ISO 7days	26.8	-
	ISO 28days	39.5	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)		110	≥75 Minutes
	Final setting (minutes)	145	-
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 January 2022.			
 PLANT MANAGER		 QUALITY ASSURANCE MANAGER	



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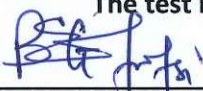
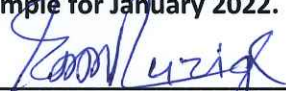


**SIMBA
CEMENT**
STRENGTH WITHIN

DATE: 03/03/2022

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 (%)	7.63	
SiO ₂ (%)	18.94	
Al ₂ O ₃ (%)	5.48	
Fe ₂ O ₃ (%)	2.83	
CaO (%)	61.41	
MgO (%)	0.85	5.0 Max.
SO ₃ (%)	2.24	3.5 Max.
K ₂ O (%)	0.12	
Na ₂ O (%)	0.21	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.37	
P ₂ O ₅ (%)	0.04	
Total (%)	99.98	
Insoluble Residue (IR) (%)	2.44	
C3A (%)	9.74	
Freelime (CaO _f) (%)	1.88	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3924	
Compressive Strength (N/mm ²):		-
ISO 7days	25.6	≥16 N/mm ²
ISO 28days	36.8	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	125	≥75 Minutes
Final setting (minutes)	150	-
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 January 2022.		
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