


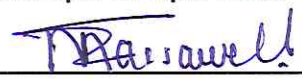


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 31/05/2023

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 (%)	10.97	
SiO ₂ (%)	16.89	
Al ₂ O ₃ (%)	4.79	
Fe ₂ O ₃ (%)	2.79	
CaO (%)	61.18	
MgO (%)	0.69	5.0 Max.
SO ₃ (%)	2.08	3.5 Max.
K ₂ O (%)	0.09	
Na ₂ O (%)	0.05	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.40	
P ₂ O ₅ (%)	0.06	
Total (%)	<u>100.00</u>	
Insoluble Residue (IR) (%)	2.52	
C3A (%)	7.98	
Free lime (CaO _f) (%)	2.05	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4118	
Compressive Strength (N/mm ²):		
ISO 7days	27.5	≥16 N/mm ²
ISO 28days	37.3	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	119	≥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 April 2023.		
 PLANT MANAGER	 QUALITY ASSURANCE MANAGER	



TANGA CEMENT PLC

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Directors:

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

Company Secretary:

Quresh Ganijee *

* Tanzanian, ** South African

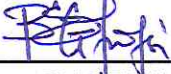
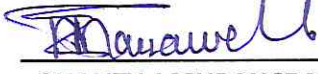


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 31/05/2023

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 32.5R
Loss on Ignition (%)	10.35	
SiO ₂ (%)	17.00	
Al ₂ O ₃ (%)	4.84	
Fe ₂ O ₃ (%)	2.71	
CaO (%)	61.69	
MgO (%)	0.71	5.0 Max.
SO ₃ (%)	2.10	3.5 Max.
K ₂ O (%)	0.08	
Na ₂ O (%)	0.07	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.39	
P ₂ O ₅ (%)	0.05	
Total (%)	<u>100.00</u>	
Insoluble Residue (IR) (%)	2.52	
C3A (%)	8.25	
Freelime (CaO _f) (%)	2.14	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3996	
Compressive Strength (Mpa):	ISO 2days	≥10 N/mm ²
	ISO 7days	-
	ISO 28days	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	120	≥75 Minutes
Final setting (minutes)	139	-
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 April 2023.		
 PLANT MANAGER	 QUALITY ASSURANCE MANAGER	



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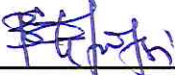



SIMBA
CEMENT
STRENGTH WITHIN

DATE: 31/05/2023

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
CHEMICAL TESTS:		
		CEM II/A-L 42.5N
Loss on Ignition (%)	9.50	
SiO ₂ (%)	17.34	
Al ₂ O ₃ (%)	4.90	
Fe ₂ O ₃ (%)	2.73	
CaO (%)	61.93	
MgO (%)	0.73	5.0 Max.
SO ₃ (%)	2.25	3.5 Max.
K ₂ O (%)	0.09	
Na ₂ O (%)	0.06	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.40	
P ₂ O ₅ (%)	0.06	
Total (%)	<u>100.00</u>	
Insoluble Residue (IR) (%)	2.51	
C3A (%)	8.37	
Free lime (CaO _f) (%)	2.07	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4427	
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)	127	≥60 Minutes
Final setting (minutes)	144	-
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 April 2023.		
 PLANT MANAGER	 QUALITY ASSURANCE MANAGER	



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