


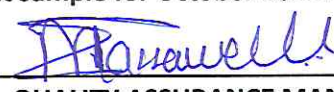


**SIMBA
CEMENT**
STRENGTH WITHIN

DATE: 01/12/2022

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 (%)	7.92	
SiO ₂ (%)	17.86	
Al ₂ O ₃ (%)	5.43	
Fe ₂ O ₃ (%)	3.69	
CaO (%)	61.69	
MgO (%)	0.71	5.0 Max.
SO ₃ (%)	1.94	3.5 Max.
K ₂ O (%)	0.06	
Na ₂ O (%)	0.11	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.52	
P ₂ O ₅ (%)	0.06	
Total (%)	100.00	
Insoluble Residue (IR) (%)	2.59	
C3A (%)	8.15	
Freelime (CaO _f) (%)	2.25	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	4309	
Compressive Strength (N/mm ²):		-
ISO 7days	28.5	≥16 N/mm ²
ISO 28days	37.1	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	116	≥75 Minutes
Final setting (minutes)	142	-
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 October 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 Mbiliinyi*

Company Secretary: Quresh Ganijee*
*Tanzanian, **South African


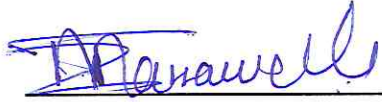


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 01/12/2022

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 (%)	8.01		
SiO ₂ (%)	17.41		
Al ₂ O ₃ (%)	5.38		
Fe ₂ O ₃ (%)	3.73		
CaO (%)	62.08		
MgO (%)	0.72	5.0 Max.	
SO ₃ (%)	1.90	3.5 Max.	
K ₂ O (%)	0.07		
Na ₂ O (%)	0.10		
Cl (%)	0.01	0.1 Max	
TiO ₂ (%)	0.53		
P ₂ O ₅ (%)	0.06		
Total (%)	100.00		
Insoluble Residue (IR) (%)	2.60		
C3A (%)	7.95		
Freelime (CaO _f) (%)	2.20		
PHYSICAL TESTS:			
Air permeability - Blaine (cm ² /g)	4291		
Compressive Strength (Mpa):	ISO 2days	14.3	≥10 N/mm ²
	ISO 7days	29.5	-
	ISO 28days	37.3	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	109	≥75 Minutes	
Final setting (minutes)	134	-	
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 October 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 Mbiliinyi*

Company Secretary: Quresh Ganijee*
*Tanzanian, **South African

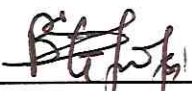
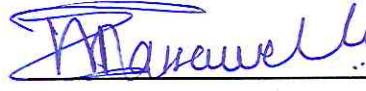


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 01/12/2022

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	
		CEM II/A-L 42.5N	
CHEMICAL TESTS:			
Loss on Ignition (%)	7.77		
SiO ₂ (%)	18.16		
Al ₂ O ₃ (%)	5.38		
Fe ₂ O ₃ (%)	3.65		
CaO (%)	61.60		
MgO (%)	0.71	5.0 Max.	
SO ₃ (%)	2.00	3.5 Max.	
K ₂ O (%)	0.06		
Na ₂ O (%)	0.11		
Cl (%)	0.01	0.1 Max	
TiO ₂ (%)	0.52		
P ₂ O ₅ (%)	0.07		
Total (%)	<u>100.00</u>		
Insoluble Residue (IR) (%)	2.49		
C3A (%)	7.98		
Freelime (CaO _f) (%)	2.03		
PHYSICAL TESTS:			
Air permeability - Blaine (cm ² /g)	4482		
Compressive Strength (Mpa):	ISO 2days	17.7	≥10 N/mm ²
	ISO 7days	33.3	-
	ISO 28days	47.8	≥42.5 N/mm ² ; ≤62.5 N/mm ²
Vicat test: Initial setting (minutes)	124	≥60 Minutes	
Final setting (minutes)	156	-	
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 October 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 Ganjee*

*Tanzanian, **South African