



SIMBA
CEMENT
STRENGTH WITHIN

DATE: 04/05/2021

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 CEM II/B-M 32.5N
CHEMICAL TESTS:			
Loss on Ignition (%)	9.61		
SiO ₂ (%)	18.10		
Al ₂ O ₃ (%)	4.43		
Fe ₂ O ₃ (%)	2.37		
CaO (%)	61.14		
MgO (%)	0.74		5.0 Max.
SO ₃ (%)	2.43		3.5 Max.
K ₂ O (%)	0.09		
Na ₂ O (%)	0.10		
Cl (%)	0.01		0.1 Max
TiO ₂ (%)	0.30		
P ₂ O ₅ (%)	0.04		
Total (%)	99.36		
Insoluble Residue (IR) (%)	2.14		
C3A (%)	7.73		
Freelime (CaO _f) (%)	1.97		
PHYSICAL TESTS:			
Air permeability - Blaine (cm ² /g)	3783		
Compressive Strength (N/mm ²):			-
ISO 7days	26.0		≥16 N/mm ²
ISO 28days	39.5		≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	121		≥75 Minutes
Final setting (minutes)	159		-
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 March 2021.			
 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: 04/05/2021

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 (%)	9.63	
SiO ₂ (%)	18.32	
Al ₂ O ₃ (%)	4.74	
Fe ₂ O ₃ (%)	2.71	
CaO (%)	59.98	
MgO (%)	0.79	5.0 Max.
SO ₃ (%)	2.36	3.5 Max.
K ₂ O (%)	0.17	
Na ₂ O (%)	0.06	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.34	
P ₂ O ₅ (%)	0.04	
Total (%)	99.15	
Insoluble Residue (IR) (%)	2.98	
C3A (%)	7.98	
Freelime (CaO _f) (%)	2.75	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3844	
Compressive Strength (Mpa): ISO 2days	13.0	≥10 N/mm ²
ISO 7days	26.5	-
ISO 28days	41.8	≥32.5 N/mm ² ; ≤52.5 N/mm ²
Vicat test: Initial setting (minutes)	123	≥75 Minutes
Final setting (minutes)	154	-
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 March 2021.		
 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

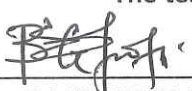


SIMBA
CEMENT
STRENGTH WITHIN

DATE: 04/05/2021

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
		CEM II/A-L 42.5N
CHEMICAL TESTS:		
Loss on Ignition (%)	9.45	
SiO ₂ (%)	18.98	
Al ₂ O ₃ (%)	4.82	
Fe ₂ O ₃ (%)	2.97	
CaO (%)	59.33	
MgO (%)	0.72	5.0 Max.
SO ₃ (%)	2.34	3.5 Max.
K ₂ O (%)	0.15	
Na ₂ O (%)	0.08	
Cl (%)	0.01	0.1 Max
TiO ₂ (%)	0.32	
P ₂ O ₅ (%)	0.08	
Total (%)	99.25	
Insoluble Residue (IR) (%)	3.01	
C3A (%)	7.75	
Freelime (CaO _f) (%)	2.11	
PHYSICAL TESTS:		
Air permeability - Blaine (cm ² /g)	3792	
Compressive Strength (Mpa):	ISO 2days	15.0
	ISO 7days	29.8
	ISO 28days	47.7
		≥10 N/mm ²
		-
		≥42.5 N/mm ² ; ≤62.5 N/mm ²
Vicat test: Initial setting (minutes)	102	≥60 Minutes
Final setting (minutes)	149	-
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 2021.		
 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