

Tanzania Portland Cement Public Limited Company

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MONTHLY CERTIFICATE OF CHEMICAL & PHYSICAL TESTS

TWIGA MEGA CEM III/B-SR CLASS 42.5N

JULY,2024

Sampled and tested in accordance with the requirements of the Tanzanian Bureau of Standards
TZS 727-1/ EAS 18-1

	CHEMICAL T	EST RESULTS	
Test	Unit	Test results	Specified requirements
Loss on Ignition	[%]	3.38	No requirement
Insoluble Residues	[%]	1.00	Less than 5.0%
CaO	[%]	48.5	No requirement
SiO ₂	[%]	27.6	No requirement
CaO/SiO ₂	[-]	1.74	Not less than 2.0%
Al ₂ O ₃	[%]	9.22	No requirement
Fe ₂ O ₃	[%]	2.10	No requirement
MgO	[%]	3.55	Not more than 5.0%
SO ₃	[%]	2.78	Less than 3.5%
K ₂ O	[%]	0.36	No requirement
Na ₂ O	[%]	0.09	No requirement
P ₂ O ₅	[%]	0.06	No requirement
MnO	[%]	0.05	No requirement
TiO ₂	[%]	0.52	No requirement
$(Na_2O + 0.658K_2O)$	[%]	0.29	No requirement
CI ⁻	[%]	0.001	Less than 0.10%
	PHYSICAL TES	ST RESULTS	
Density	[kg/m³]	3102	No requirement
Specific Surface (Blaine)	[m²/kg]	518	No requirement
Sieving Residue on 45 mic.	[%]	5.2	No requirement
nitial Setting Time	[Minutes]	178	Not less than 60 minutes
Soundness (Expansion)	[mm]	1.0	Not more than 10.0 mm
Compressive Strength 2 days	[MPa]	15.2	More than 10.0 MPa
Compressive Strength 28 days*	[MPa]	52,4	Between 42.5 and 62.5 MPa

Remarks: * The 28 days strength is the average of previous month

Wazo Hill, 2024/08/05th

Quality Control Manager

Plant Manager

Board Directors: Hakan Gurdat (Turkich) Alfonso Velez (Spanish.)

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