

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

OCTOBER, 2024

Sampled and tested in accordance with the requirements of the Tanzanian Bureau of Standards

TZS 727-1/ EAS 18-1. Equivalent to EN 197-1

CHEMICAL TEST RESULTS			
Test	Unit	Test results	Specified requirements
Loss on Ignition	[%]	3.45	No requirement
Insoluble Residues	[%]	1.04	Less than 5.0%
CaO	[%]	48.7	No requirement
SiO ₂	[%]	27.5	No requirement
CaO/SiO ₂	[-]	1.75	Not less than 2.0%
Al ₂ O ₃	[%]	9.33	No requirement
Fe ₂ O ₃	[%]	2.16	No requirement
MgO	[%]	3.52	Not more than 5.0%
SO ₃	[%]	2.80	Less than 3.5%
K ₂ O	[%]	0.36	No requirement
Na ₂ O	[%]	0.08	No requirement
P ₂ O ₅	[%]	0.06	No requirement
MnO	[%]	0.05	No requirement
TiO ₂	[%]	0.50	No requirement
(Na ₂ O+ 0.658K ₂ O)	[%]	0.29	No requirement
Cl ⁻	[%]	0.001	Less than 0.10%
PHYSICAL TEST RESULTS			
Density	[kg/m ³]	3102	No requirement
Specific Surface (Blaine)	[m ² /kg]	515	No requirement
Sieving Residue on 45 mic.	[%]	5.4	No requirement
Initial Setting Time	[Minutes]	170	Not less than 60 minutes
Soundness (Expansion)	[mm]	1.0	Not more than 10.0 mm
Compressive Strength 2 days	[MPa]	14.8	More than 10.0 MPa
Compressive Strength 28 days*	[MPa]	50.4	Between 42.5 and 62.5 MPa

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

Wazo Hill, 2024/11/05th

Quality Control Manager

Plant Manager

Commercial Director