



HEIDELBERGCEMENT Group

Tanzania Portland Cement Public Limited Company
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MONTHLY CERTIFICATE OF CHEMICAL & PHYSICAL TESTS TWIGA EXTRA, CEM II/B-L CLASS 32.5 R MAY, 2023

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

CHEMICAL TEST RESULTS			
Test Parameters	Unit	Test results	Specified requirements
Loss on Ignition	[%]	12.9	No requirement
Insoluble Residues	[%]	1.2	Less than 5.0%
CaO	[%]	57.4	No requirement
SiO ₂	[%]	17.0	No requirement
CaO/SiO ₂	[-]	2.7	Not less than 2.0%
Al ₂ O ₃	[%]	4.9	No requirement
Fe ₂ O ₃	[%]	2.8	No requirement
MgO	[%]	0.8	Not more than 5.0%
SO ₃	[%]	2.4	Less than 3.5%
K ₂ O	[%]	0.34	No requirement
Na ₂ O	[%]	0.12	No requirement
P ₂ O ₅	[%]	0.08	No requirement
TiO ₂	[%]	0.35	No requirement
MnO	[%]	0.07	No requirement
(Na ₂ O+ 0.658 K ₂ O)	[%]	0.42	No requirement
Cl ⁻	[%]	0.001	Less than 0.10%
PHYSICAL TEST RESULTS			
Specific Surface (Blaine)	[m ² /kg]	452	No requirement
Sieving Residue on 45 mic. mesh	[%]	9.1	No requirement
Initial Setting Time	[Minutes]	138	Not less than 75 minutes
Soundness (Expansion)	[mm]	1.0	Not more than 10.0 mm
Compressive Strength 2 days	[MPa]	14.4	More than 10.0 MPa
Compressive Strength 28* *days*	[MPa]	35.2	Between 32.5 and 52.5 Mpa

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

Wazo Hill, 2023/06/05th


Quality Control Manager


Plant Manager


Commercial Director

Board Directors
Hakan Gurdal (Turkish)
Alfonso Velez (Spanish)
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