



HEIDELBERGCEMENT Group

Tanzania Portland Cement Company limited

P.O.Box 1950, Dar es Salaam-Tanzania

Telephone: +255-746 810 930

Fax: +255-746 810 931

Info@twigacement.com

www.twigacement.com

MONTHLY CERTIFICATE OF CHEMICAL AND PHYSICAL TESTS TWIGA JENGA MASONRY CEMENT, MC 22.5X

SEPTEMBER, 2019


Sampled and tested in accordance with the requirements of European Standard
EN 413 – 1: 2004

Test	Unit	Test results monthly average	Specified requirements EN 413-1:2004
Loss on ignition	[%]	16.5	No Requirement
CaO	[%]	58.1	No Requirement
SiO ₂	[%]	15.5	No Requirement
Al ₂ O ₃	[%]	4.2	No Requirement
Fe ₂ O ₃	[%]	2.5	No Requirement
MgO	[%]	0.5	No Requirement
SO ₃	[%]	2.3	Less than 3.0%
Cl	[%]	0.01	Less than 0.10%
Specific Surface (Blaine)	[m ² /kg]	498	No Requirement
Sieving Residue on 90 mic.	[%]	2.0	Not more than 15.0 %
Initial setting time	[minutes]	135	Not less than 60 minutes
Soundness (expansion)	[mm.]	1.0	Not more than 10 mm.
Compressive strength 7 days	[MPa]	20.3	More than 10 MPa.
Compressive strength 28 days*	[MPa]	30.2	Between 22.5 and 42.5 MPa

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

Wazo Hill, 2019/10/04th


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Quality Control Manager


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Quality & Process Control Manager


Yves Mazaigne
Commercial Director
TKC PLC
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Commercial Director

Board Directors:
Hakan Gurdal (Turkish)
Alfonso Velez (Spanish)
Francesco Brambilla (Italian)

Ruth Zaipuna (Tanzanian)
Gary Whitehead (British)
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