

**Tanzania Portland Cement Company limited**

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## WEEKLY CERTIFICATE OF CHEMICAL & PHYSICAL TESTS

**TWIGA EXTRA, CEM II/B-L CLASS 32.5 R**

Average of dispatched cement during week 12/2017 (from 20<sup>th</sup> March, 2017 to 26<sup>th</sup> March, 2017)

Sampled and tested in accordance with the requirements of the Tanzanian standard

**TZS727:2002. Equivalent to EN 197-1**

Test	Unit	Test results	Specified requirements TZS 727:2002
Loss on Ignition	[ % ]	14.3	No requirement
Insoluble Residues	[ % ]	1.3	Less than 5.0 %
CaO	[ % ]	61.6	No requirement
SiO <sub>2</sub>	[ % ]	15.9	No requirement
CaO/SiO <sub>2</sub>	[ - ]	3.9	Not less than 2.0 %
Al <sub>2</sub> O <sub>3</sub>	[ % ]	4.1	No requirement
Fe <sub>2</sub> O <sub>3</sub>	[ % ]	2.4	No requirement
MgO	[ % ]	0.4	Not more than 5.0 %
SO <sub>3</sub>	[ % ]	2.6	Less than 3.5 %
Cl <sup>-</sup>	[ % ]	0.001	Less than 0.10 %
Density	[ kg/m <sup>3</sup> ]	3000	No requirement
Specific Surface (Blaine)	[ m <sup>2</sup> /kg ]	474	No requirement
Sieving Residue on 45 mic.	[ % ]	12.3	No requirement
Initial Setting Time	[ Minutes ]	145	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 ]	36.6	Between 32.5 and 52.5 Mpa

Remarks: \* Cement dispatched during week 08/2017 (from 20<sup>th</sup> February, 2017 to 26<sup>th</sup> February, 2017)

Wazo Hill, 2017/03/30<sup>th</sup>

  
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Quality Control Manager

  
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Quality & Process Control Manager

  
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Commercial Director

**Board Directors:**

Jean-Marc Junon (French)  
Alfonso Rodriguez (Spanish)  
Hakan Gurdal (Turkish)

Gary Whitehead (British)  
Ruth Zaipuna (Tanzanian)  
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