



Job No. J0299M-DB24 (B) / BO 200004769

**ANALYSIS REPORT**

In accordance with the instructions received from **M/S ARABIAN YEMEN CEMENT COMPANY LTD**, Yemen Hadhramout Alyaoun area, Al Yaoun, Mukalla, Yemen, we have arranged laboratory test on sample submitted to us:

**Scope of Intervention:**

To arrange analysis of sample submitted to us in SGS / Independent lab for the parameters reported below.

**Description of Sample (as stated): CEMENT – CEM II /A-P 42.5N, according to BS EN 197-2011****On which we report as follows:**

As per client's instructions the sample was analysed at SGS / Independent lab for the requested parameters and the test results received are reported as follows:

PARAMETERS – Chemical Test	TEST METHOD	UNIT	RESULTS
Silica (SiO <sub>2</sub> )	BS EN 196-2	%	23.59
Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> )	BS EN 196-2	%	5.04
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	BS EN 196-2	%	4.79
Calcium Oxide (CaO)	BS EN 196-2	%	54.31
Magnesium Oxide (MgO)	BS EN 196-2	%	1.96
Sodium Oxide (Na <sub>2</sub> O)	BS EN 196-2	%	0.52
Potassium Oxide (K <sub>2</sub> O)	BS EN 196-2	%	0.75
Sulphur Trioxide (SO <sub>3</sub> )	BS EN 196-2	%	2.38
Chloride (Cl)	BS EN 196-2	%	0.021
Loss on Ignition (LOI)	BS EN 196-2	%	4.02
Tricalcium Aluminate (C <sub>3</sub> A)	By Calculation	%	5.25
Tetra Calcium Alumino-Ferrite (C <sub>4</sub> AF)	By Calculation	%	14.58

PARAMETERS – Physical Test	TEST METHOD	UNIT	RESULTS
Fineness – Specific Surface (Blaine)	BS EN 196-6	m <sup>2</sup> /kg	349
Soundness by Le-Chatelier Expansion	BS EN 196-3	mm	0.5
Setting Time: Initial	BS EN 196-3	Minutes	170
Setting Time: Final	BS EN 196-3	Minutes	200
Compressive strength @ 2 days	BS EN 196-1	MPa	15.7
Compressive strength @ 7 days	BS EN 196-1	MPa	31.5
Compressive strength @ 28 days	BS EN 196-1	MPa	50.4

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and/or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

Signed and dated at SGS Dubai  
Issue date: 28<sup>th</sup> January, 2025

For and on behalf of  
SGS GULF LTD

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