

CCAA PROFICIENCY TESTING PROGRAM FOR CEMENT

This program is organised and coordinated by Cement Concrete and Aggregates Australia (CCAA). It is designed to provide laboratories with an opportunity to assess the reliability of their testing facility, as well as the operational skills of their technicians. With a successful history of over 70 years, the program has attracted and maintains regular participations of laboratories within Australia and internationally.

This program meets the requirements specified in ISO 17025 for comparing testing through an inter-laboratory program; is recognised by NATA and IANZ; and follows the principles of ISO 17043. Testing of the same category is performed under the same standards, similar conditions and on strictly controlled cement samples. On that basis, by employing in-depth statistical analyses based on data-rich collection of test results contributed by all participating laboratories, their accuracy/reliability statuses can be determined and reported. Testing frameworks include the following:

1. CHEMICAL COMPOSITIONS OF CEMENT

COMPONENT	UNIT	COMPONENT	UNIT	COMPONENT	UNIT	COMPONENT	UNIT
CaO	%	SO ₃	%	TiO ₂	%	Chloride	%
SiO ₂	%	MgO	%	P ₂ O ₅	%	Free lime	%
Al ₂ O ₃	%	Na ₂ O	%	Mn ₂ O ₃	%	Loss on ignition	%
Fe ₂ O ₃	%	K ₂ O	%			Insoluble residue	%

2. PHYSICAL PROPERTIES OF CEMENT

COMPONENT	UNIT	COMPONENT	UNIT	COMPONENT	UNIT	COMPONENT	UNIT
Normal consistency	%	Soundness	%	Fineness	m ² /kg	Heat of hydration 7d	kJ/kg
Initial set time	min	Insoluble residue	%	Residue on 45μ sieve	%	Heat of hydration 28d	kJ/kg
Final set time	min	Specific gravity	-	Autoclave expansion	%	Peak temperature rise	°C
						Time to peak temperature	hour

3. PHYSICAL PROPERTIES OF CEMENT MORTAR

COMPONENT	UNIT	COMPONENT	UNIT	COMPONENT	UNIT
Mortar compressive strength	MPa	Mortar drying shrinkage	με	Mortar sulfate expansion	με

Participants may choose to conduct either Chemical Compositions test series (Item 1), Physical Properties test series (Items 2 and 3), or both. All experiments comply with Australian Standard test suite, European Standard test suite, British Standard test suite or other suitable locally developed methods. Statistical analyses of test results, including repeatability and reproducibility assessments, are conducted based on ISO 5725-2, ISO/TR 22971 and ASTM E691.

It should be noted that reference materials are supplied to participants, once registration is closed, without type and source identification. All analysis results are reported without attribution, to ensure the confidentiality of participants. Each participant laboratory will be assigned with a unique Laboratory Identification then be advised separately when the final report is released.

For further information, visit [CCAA website](http://www.ccaa.com.au) or contact CCAA at duy.nguyen@ccaa.com.au

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EXPRESSION OF INTEREST

Corresponding email: duy.nguyen@ccaa.com.au

Laboratory Name: _____
Contact Name: _____
Delivery Address: _____ _____
Phone: _____
Email Address: _____

We would like to participate in the 2021 Proficiency Testing Program for cement, coordinated by CCAA. Our order details are selected and confirmed in the following table.

We are interested in the following testing component:	We wish to received notifications from CCAA regarding the proficiency testing program for the following year(s):
(Please select ONE) Chemical Tests Only Physical Tests Only Full Program	(Please select ONE) [insert preferred year/s] The nearest program Every Year

Signed: _____
(for and on behalf of laboratory)

Name: _____

Date: _____