

Cement

Aim of the Program

This proficiency testing program aims to assess laboratories' ability to competently perform chemical and physical analysis of cement; and to provide participants with external quality assurance to enhance accuracy and reliability.

Application of the Program to Accreditation

Participation in this proficiency testing program satisfies the requirements of ISO/IEC 17025:2017 – *General Requirements for the Competence of Testing and Calibration Laboratories* for monitoring performance by comparing results with other laboratories.

Program Details

The Cement program is an annual program comprised of one round per year, usually conducted in July.

Participants receive one sample of OPC Cement. The tests for each round may include: Chemical Composition (SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO, SO₃, Na₂O, K₂O, Cl), Loss on Ignition, Specific Surface Area (Blaine), Fineness by the 45 µm Sieve and Laser Granulometry (Median Particle Size (µm) and Particle Size 3 to 32 µm (%)).

Participants are asked to analyse the samples, provide an estimate of their measurement uncertainty (MU) and to indicate the methods they used. The results submitted by participants for a particular test are typically pooled across all methods and robust z-scores are used to analyse the results.

Summary sheets detailing the performance of that laboratory in the program are submitted to individual participants once results have been analysed. A final report, summarising the information submitted by all of the participants will be email to participants at the conclusion of each round of the program.

Statistical Analysis:

A robust z-score technique is used to assess performance.

Reporting:

At the conclusion of each round, each participant receives a confidential individual summary sheet, detailing its performance in the program, and a final program report summarising all participant data.

Confidentiality

Each participant is assigned a unique code number, keeping all results anonymous in all PTA reports and publications.

Fees and Further Information

For information on program fees or other enquiries, please contact PTA directly:

Email: ptaenquiry@pta.asn.au