



Call for participation in the 2020/2021 Pan-African Cement Proficiency Testing Scheme organised by BAM and PTB



General information

The Pan-African Cement Proficiency Testing Scheme (PACE-PTS) is a joint cooperation between the BAM Federal Institute for Materials Research and Testing and the German Metrology Institute (PTB). It gives opportunity for public and private laboratories to self-assess their laboratory performance and to increase their network and skills due to a supplementary evaluation workshop. After 2012, 2014, and 2016 the PACE-PTS in 2020 is the fourth Africa-wide proficiency testing scheme. It is funded within the framework of the German Development Cooperation. The evaluation workshops were organised in Berlin, Tanzania, and Cameroon in 2013 and 2015, and 2017, respectively.

Background

The cement proficiency test (PT) scheme was set up in 2012 with the aim of establishing a cement-testing network in Africa. Testing the quality of cement is an important task in order to ensure the safety of construction. PTs are evaluations of participants' performance against pre-established criteria by means of inter-laboratory comparisons. Proficiency tests are a precondition for accreditation to ISO/IEC 17025.

Participants

Private and public laboratories involved in cement testing, and which are competent to analyse the fundamental physical and chemical properties of cement, are encouraged to participate. The costs for the participation in the PT scheme differ in price between public laboratories (universities and governmental) and private laboratories (see fees below). The attendance of the final workshop is open for all participants. If the workshop will not be held virtually due to the pandemic, funding for participation will be available for delegates from African public laboratories who submit results.

Scope

The PACE-PTS will cover testing of the most relevant physical and chemical properties of cement. The final testing programme will be announced later. The required raw materials (cement, sand, extra items) will be sent out to all registered participants for the analysis. The results need to be submitted by a deadline, which will be fixed as soon as the registration is closed. After the analysis of the results, each laboratory that has paid the fee will receive an anonymised report about the statistical results and an assignment number to identify the individual laboratory's statistics.

At the end of the PT scheme a final workshop will take place in 2021 that is open for all participants to analyse and discuss the results of the executed tests, with discussions of corrective measures and the way forward. The workshop participation is supported by the funding scheme for public laboratories.

Fees

Public laboratories (Universities and Government):

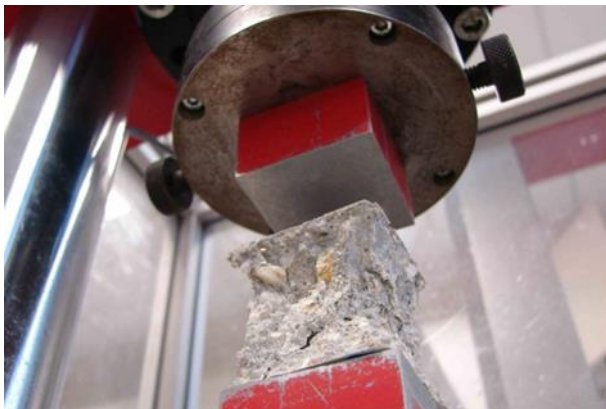
100 EUR

Private laboratories (Industries):

300 EUR

After receipt of the registration forms participants will receive an invoice with bank details for payment transfer.

The fees cover shipping of testing materials, the final report, a certificate of participation as well as the provision of a final workshop including a training module (the details and location of the workshop will be announced later, in 2021 the workshop might be organised as a digital event).



Physical Parameters



Chemical Parameters

History

As agreed upon among all international partners in the kick-off workshop of the PACE-PTS, the testing in the previous proficiency testing schemes in 2012, 2014, and 2016 was performed according to the European Standards with documented results according to a specified format.

The final networking and discussion workshop has always been an important part of the scheme. It is likely that the final workshop cannot be held as in the past PACE-PTS rounds due to the global pandemic situation. However, the situation will be observed, and decisions will be taken based on the assessment of the situation in 2021.

Experimental programme

Test item	Specification
Loss on Ignition	EN 196-2:2013
Insoluble residue	EN 196-2:2013
Chloride content	EN 196-2:2013
Sulfate content	EN 196-2:2013
Specific surface (Blaine)	EN 196-6:2019
Standard consistence	EN 196-3:2017
Initial setting time	EN 196-3:2017
Final setting time	EN 196-3:2017
Flexural strength after 2 and 28 days	EN 196-1:2016
Compressive strength after 2 and 28 days	EN 196-1:2016
Test item	Specification
Soundness	EN 196-3:2017
Flexural strength after 7 days	EN 196-1:2016
Compressive strength after 7 days	EN 196-1:2016
Particle size distribution	EN 933-1:2012
Flow properties with reference cement and chemical admixtures	According to specifications
Flow properties with local cement and chemical admixtures	According to specifications

Expression of interest to register as regional coordination laboratory

Laboratories that are willing to participate as regional coordinators of the PT are welcome to express their interest to adopt a role as lead laboratory in a specific region (e.g. West Africa, East Africa, etc.). Regional coordinators play a responsible role in the scheme by keeping in contact with regional peer laboratories, mentoring and provision of support. The regional coordination laboratories will also be involved in the scientific utilisation of the results, such as publications and presentations.

Expression of interest to host the final group workshop

The final results will be presented to the group in a joint workshop organised by one of the partner laboratories. If your laboratory has the capacity and is willing to host a group of 25-40 international laboratory representatives, please indicate this in the registration. Due to uncertainties with respect international travelling due to the ongoing pandemic situation, the planned workshop might be held online or as a hybrid event.

Registration

To register for this PT scheme, please copy the application form and email it to cement-pt@bam.de

Name of Laboratory:	
Postal Address:	
Postal Address Additional Information	
P.O. Box	
Country:	
Public Institute (Yes/No):	
Contact Person:	
Email:	
Telephone/Mobile:	
Interest to be regional coordination lab	
- which region?	
Interest to host the final workshop	

The deadline for registration is **6 November 2020**.



Cement-admixture interactions



Aggregate grading



Group discussion



Hands-on workshop

Archives

2012	No. of total registered laboratories	27
	- No. of university laboratories	8
	- No. of public laboratories	17
	- No. of private laboratories	2
	No. of African laboratories that submitted results	18
	No. of European laboratories that submitted results	2

2014	No. of total registered laboratories	36
	- No. of university laboratories	6
	- No. of public laboratories	21
	- No. of private laboratories	9
	No. of African laboratories that submitted results	18
	No. of European laboratories that submitted results	2

2016	No. of total registered laboratories	53
	- No. of university laboratories	12
	- No. of public laboratories	32
	- No. of private laboratories	11
	No. of African laboratories that submitted results	40
	No. of European laboratories that submitted results	3

Contact

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The PACE-PTS is organised by



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