



Proficiency Testing Group

proficiency testing provider no. 7014 accredited by ČIA
in accordance with ČSN EN ISO/IEC 17043:2010

Information on proficiency testing programme: interlaboratory comparison of solid fossil fuels in 2024

Dear employees of testing laboratories,

We would like to invite you to our forthcoming proficiency testing programme PT/COAL/2024. This programme is designed as interlaboratory comparison. The proficiency testing programme is focused on testing laboratories performing solid fossil fuel tests. The objective of this programme is to demonstrate the proficiency of accredited and non-accredited laboratories, including verification of used uncertainties of measurement.

The Proficiency Testing Programme

The object of PT/COAL/2024 is determination of

- ash,
- sulphur content,
- gross calorific value (higher heating value, higher calorific value, upper heating value),
- carbon content,
- hydrogen content,
- nitrogen content,
- volatile matter,
- chlorine content and
- mercury content.

The Test Items

Test items will be five analytic samples of solid fossil fuels, 3 samples of brown coals and one sample of black coal and coke. These samples will be prepared in an accredited testing laboratory. All sample sets will be verified for homogeneity before distribution. After the competition of tests by laboratories, the stability of each sample set will be verified. The analyses for homogeneity and stability will be performed in an accredited testing laboratory.

The Time Schedule

Application of the laboratories	until 29. 1. 2024
Preparation and distribution of samples	until 19. 2. 2024
Carrying the tests and delivering results	until 25. 3. 2024
Statistical data analysis of results and delivery of the draft report (in PDF)	until 22. 4. 2024
Comments on the draft report	until 29. 4. 2024
Distribution of the final report (in PDF), the certificate of participation and QCMs	until 13. 5. 2024
Deadline for complains	until 13. 6. 2024

The Applications

The criteria for participation is only the timely submission of the complete application form, agreement with the conditions in the application form and the participation of a minimum of 7 laboratories. Please send the signed application to the Proficiency Testing Group in Most or electronically to the email szz@orgrez.cz. The application form and other information on our proficiency testing programmes can be found on our website: <http://www.orgrez.cz/en/services/proficiency-testing/>.

The PT Programme Organisation

- Five samples (about 35 g each) will be distributed via postal service along with detailed instructions.
- It is possible to arrange another method of delivery.
- In case of non-delivery of samples on time according to the schedule, file a complaint with the PT provider.
- Samples will be marked with a unique numeric code in order to avoid improper agreements or falsifying the results.
- Each laboratory will receive only one set of samples and may submit only one set of results.
- Laboratories can use any method which they use by default. Separate evaluation of results according to methods is possible only with a sufficient number of results with the given method, otherwise this will be taken into account in the comments of the results.
- All results are required on the dry basis, ie in the state free of analytical moisture.
- Determination of all characteristics of the fuel, nor all samples in the programme is not mandatory. However, the fee remains the same in this case.
- Laboratories will receive digital draft of final report on PT programme for comments.
- Once the draft of final report is published, the results received cannot be changed or deleted.
- Every laboratory will receive the certificate of participation, the individual evaluation of performance and one set of quality control materials (five samples – about 50 g each).
- To protect the environment, the final report will also be provided to the laboratories electronically.

Evaluation

In accordance with the requirements of ČSN EN ISO/IEC 17 043, statistical methods with evaluation of success according to z-score or z'-score according to ČSN ISO 13528 will be used for evaluation of laboratory performance. A suitable robust average will be used as the assigned value, characterizing the given distribution of the set of values of laboratory results. In a possibly small number of laboratories, Horn's procedure will be used. The differences will be further compared with standardized values for reproducibility according to standards:

- **ČSN ISO 1171** – Solid mineral fuels – Determination of ash
- **ČSN ISO 1928** – Solid mineral fuels – Determination of gross calorific value by the bomb calorimetric method and calculation of net calorific value
- **ČSN ISO 19579** – Solid mineral fuels – Determination of sulfur by IR spectrometry
- **ČSN ISO 29541** – Determination of total carbon, hydrogen and nitrogen content – Instrumental method
- **ČSN ISO 562** – Hard coal and coke – Determination of volatile matter
- **ČSN ISO 5071-1** – Brown coals and lignites – Determination of the volatile matter in the analysis sample – Part 1: Two-furnace method
- **ČSN 44 1393** – Black and brown coals. Determination of mercury content
- **ČSN ISO 587** – Solid mineral fuels: Determination of chlorine using Eschka mixture.

Results of PT programme evaluation

The results of the evaluation of the PT program will be included in the summary final report, in which they will be presented under the code numbers of individual laboratories. Each laboratory will receive The Certificate of Participation in the proficiency testing programme, including a separate evaluation. Participants from Czech and Slovak Republic will receive all documents in the Czech language, participants from other countries in the English language.

The Fee

The fee for participation in the programme PT/COAL/2024 is **16 200,-** CZK without VAT. The cost of transportation and any imposed taxes and other fees are not included and will be added according to reality. The fee also includes one set of quality control material weighting about 50 g. The price for additional quality control material is **590,-** CZK without VAT per sample. Each participant will receive an invoice after completing the programme. Payment in EUR will be charged according to the current CZK/EUR exchange rate on the day the invoice will be issued. If it is necessary for you to issue an order, please indicate the date of May 13, 2024 or later for invoicing purposes.

Bank connection

Raiffeisenbank a.s. Hvězdova 1716/2b, 140 78 Praha 4

CZK account: 5014033535/5500

EUR account: 5014033543/5500

IBAN: CZ2655000000005014033535

IBAN: CZ0455000000005014033543

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Wishing you successful cooperation on behalf of the Proficiency Testing Group

Mgr. Jan Pomahač – Head of the Proficiency Testing Group

Michal Petrák – Coordinator of the Proficiency Testing Group

Ing. Miroslava Šindelářová – Quality manager of the Proficiency Testing Group

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