

will perform the interlaboratory test on the method "DIN EN 15188:2021-07 Determination of the spontaneous ignition behaviour of dust accumulations" in cooperation with the QuoData Quality Management and Statistics GmbH and the Physikalisch-Technische Bundesanstalt (PTB).

Centre for quality assurance for testing of dangerous goods and hazardous substances CEQAT-DGHS



**Bundesanstalt für
Materialforschung
und -prüfung (BAM)**



**Quality Management and Statistics
GmbH**



**Physikalisch-Technische Bundesanstalt
(PTB)**

Interlaboratory test 2023 "DIN EN 15188:2021-07 Determination of the spontaneous ignition behaviour of dust accumulations"

Important information for the participants of the interlaboratory test

2022-12-05

Aim

The interlaboratory test on the revised method "DIN EN 15188:2021-07 Determination of the spontaneous ignition behaviour of dust accumulations" [1] is carried out as a proficiency test in accordance with ISO/IEC 17043:2010.

Note: BAM is not accredited according to ISO/IEC 17043:2010 but in case of proficiency tests we work in accordance with ISO/IEC 17043:2010. Deviating from this standard, the evaluation of performance (together with the data analysis) is carried out as a subcontract with a cooperating partner of CEQAT-DGHS. The order- and rule-compliant performance of our services is supported by a BAM-internal quality management system

Background

The self-ignition behaviour of flammable dusts is determined experimentally by isoperibol hot storage tests according to the revised DIN EN 15188:2021-07. For these tests the respective test sample is stored in commercially available laboratory ovens. The temperature of the oven is measured by thermocouples freely installed in the oven.

Note: The aim of former interlaboratory tests [2, 3] (not proficiency tests) was to assess a progressively improved test method (former, now invalid DIN EN 15188:2007) by the investigation of different test sample materials. In this connection, not only was the method improved, but test method measurement uncertainty of the improved test method has been determined. On this basis, the test method was revised and the revised test method DIN EN 15188:2021-07 [1] was published in 2021.

Important note due to specifics of the interlaboratory test substances

One of the two interlaboratory materials (samples) has a very small particle size combined with high flowability. It is therefore pointed out that, as required by the revised standard DIN EN 15188:2021-07, the inner container shall be manufactured with care and the mesh opening for the wire-net shall not exceed 0,05 mm.

Important note due to the fixed testing period and the submission of the test results

In this interlaboratory test, it is mandatory that the practical examination of the two samples is carried out by participants in the fixed period from April to June 2023.

Both samples have very different ignition behaviour. For the first of the two samples, the investigation will take significantly more than 4 weeks. The second sample should be tested within 4 weeks.

Therefore, reserve your laboratory capacities in good time so that you can manage all the tests. Please note that you must send your test results to the interlaboratory test organiser immediately at the end of the fixed test period. In this proficiency test, a later submission of your test results is not possible.

Participation and minimal number of participant and participation fee

The participation in this laboratory is not limited. The interlaboratory test will be performed by a minimum number of 10. The participation fee for each participant will be 2.600,00 Euro (net) incl. test sample, shipment, certificate and report (plus VAT, where it is appropriate).

Report and data handling

Each participant will get a report and a certificate of participation which allows him to identify his laboratory's results by the lab-code.

All laboratory data and all data evaluation will be dealt with **anonymously**. No other participant will be able to assign results to another laboratory.

References:

- [1] DIN EN 15188:2021-07 is the German version of the English version EN 15188:2020
- [2] Evaluation of the interlaboratory test 2010-2011 on the method DIN EN15188:2007 "Determination of the spontaneous ignition behaviour of dust accumulations", ISBN 978-3-9815748-4-5,
<https://opus4.kobv.de/opus4-bam/frontdoor/index/index/docId/28297>
- [3] Evaluation of the interlaboratory test 2015-2016 on the method DIN EN 15188:2007 "Determination of the spontaneous ignition behaviour of dust accumulations", ISBN 978-3-9818270-0-2,
<https://opus4.kobv.de/opus4-bam/frontdoor/index/index/docId/38734>