

Proficiency test for VOC & SVOC emissions and odour assessment for building products by use of emission test chambers

- 2024 -



Announcement and invitation to participate

The established BAM Proficiency Test for VOC, SVOC and Odour will be organized in co-operation with Olfasense GmbH, who has been accredited for performing odour-related proficiency tests since 2005.

olfasense ::::

Proficiency test for VOC, SVOC and odour

We are pleased to announce the next proficiency test for VOC & SVOC emissions and odour assessment for building products by use of emission test chambers. Registration can be done via this [Olfasense Online-Form](#).

Due to structural changes at BAM and because BAM has great confidence in Olfasense as provider for proficiency tests (PTs), which is proven since 2005, the upcoming PT will be conducted in co-operation between BAM and Olfasense GmbH.

Olfasense GmbH has been accredited for performing odour related proficiency tests since 2005, and obtained accreditation for these according to the standard for proficiency testing bodies, EN ISO/IEC 17043:2010, in December 2011.¹

The proficiency test will be offered including 3 independent parts, which can be ordered separately or in combination. It will also be possible to load more than one chamber (see price list on the last page).

In the following, the 3 parts will be described in detail.

Part 1: Emission test chamber method (ISO 16000-6/9 // EN 16516)²

A lacquer-based reference material containing a mixture of VOCs and SVOCs will be distributed in petri-dishes by Olfasense and BAM as test material. The samples shall be placed into the emission test chamber(s) between 25th of November and 13th of December.

The air flow rate shall be 100 L per petri-dish and hour. For a 1m³ chamber this would be 5 petri-dishes at an air flow rate of 500 L per hour (air exchange rate of 0.5 per hour). Depending on the chamber size a sufficient number of petri-dishes will be provided.

Measurements will be conducted by the participants in their own lab and with their own laboratory equipment (emission test chamber etc.) in the given time frame of 10 working days (see "Schedule of the PT"). The laboratories are free to decide on which week day to start the loading.

Seven days after loading, three air samples shall be taken onto lab-own Tenax tubes at the chamber air exhaust and analysed. The released compounds shall be identified and quantified in two ways:

- substance specific (very important! Relevant for evaluation!) as well as via
- toluene equivalent (informational only)

The reported test results will be evaluated according to ISO 13528 (2015-08) with robust statistics and z-scores. The PT standard deviation of each individual substance is used as the basis for the valuation. If it is greater than 30%, it is capped to 30%. To successfully pass the proficiency test, at least 80% of the z-scores achieved must be ≤ 2

Important information

The VOC analyses must be conducted in accordance with EN 16516. Please be aware that a slightly polar column (5 % Phenyl, 95 % Methyl-Polysiloxane) must be used for the gas chromatography.

¹The accreditation applies to the scope listed in the annex of the accreditation certificate

² If for one or several parameters within this PT less than 8 individual results are submitted to Olfasense, the final evaluation will be only informational and the parametr(s) will not be taken into account for the z-score evaluation.

Part 2: Odour assessment (ISO 16000-28)²

Odour assessment according to ISO 16000-28 shall be carried out at the same chamber loaded as in Part 1. The participants are free to perform the assessment either based on „perceived intensity“, „hedonic tone“ or „acceptability“.

Part 3: Analysis check – transfer standard tubes²

Each participant provides four clean Tenax TA[®] tubes ready for loading; three tubes will be loaded with a VOC/SVOC-mixture and one tube will be used as transport blank. The tubes must be received by Olfasense before 23. Aug. 2024 at the latest. This option can only be offered with at least 20 participants.

They will be sent back once they have been loaded by a subcontractor (cw 45/2024). The list of the compounds to be analysed will be transmitted to the participants in advance. Tubes will be evaluated by the participants:

- substance specific (very important! Relevant for evaluation!) as well as via
- toluene equivalent (informational only)

The reported test results will be evaluated according to ISO 13528 (2015-08) with robust statistics and z-scores.

The schedule of the PT will be as follows:

Opening of the registration form	immediately
Deadline for registration	09. Aug. 2024
Deadline for arrival of participants' tubes at Olfasense for the loading of tubes as transfer standard tubes	23. Aug. 2024 at the latest
Shipment of samples (petri-dishes and tubes) to participants	04. to 08. Nov. 2024
Webinar for the PT conduction	07. Nov. 2024
Loading of chambers for the Standard PT	between 25. Nov. and 06. Dec. 2024
Sampling at chambers (day 7 after loading)	between 02. and 13. Dec. 2024
Measurements of transfer standard tubes	between 25. Nov. and 13. Dec. 2024
Deadline for results transmission to Olfasense	24. Jan. 2025
Report until	21. Mar. 2025

Costs

In November/December 2024 we'll offer the following tests. Deadline for registration is 09. Aug. 2024.

Type of Test		Costs (excl. VAT)
Part 1: Standard PT	Emission Chamber Test Method on VOC & SVOC*	700€
Part 2: Odour assessment	Odour assessment: Emission Chamber Test on Odour according to ISO 16000-28*	525€ only in combination with Part 1 650€ without participation in Part 1
Additional chamber:	Additional chamber loading**	300€ per chamber*
Part 3: Analysis check	Analysis check: measurements of transfer standards on participants' tubes. A renowned subcontractor and proven specialist for defined tube loading will be commissioned for loading.	1400€

* For participants requiring a larger amount than 5 petri-dishes of samples for chamber loading an additional fee of 100€ will be charged.

** For participants who'd like to load more than one chamber. If only Part 1 is ordered the evaluation for an extra chamber loading will be done only for VOC. If only Part 2 is ordered, the evaluation for an extra chamber loading will be done only for odour. If both parts (1+2) are ordered, the data for the extra chamber will be evaluated for both, VOC and odour.

Please note:

- When participating in more than one part, the single fees are summed up.
- VAT (currently 19%) will be charged to participants within Germany and those EU participants who do not provide a valid Value Added Tax registration number.
- Participants from EU member countries who provide a valid Value Added Tax ID number will be VAT exempt from this tax (VAT 0%).
- Shipping charges within the EU are included in the participation fee. Additional shipping charges at cost will be charged to participants located outside the EU.
- All fees are due in advance.

Registration and additional information

The publication of results will be anonymous. The language of documentation is English. Each participant receives a detailed report (results are anonymous) and certificate in digital PDF format.

You will have the possibility to register for your participation until 09. Aug. 2024 via this [Olfasense Online-Form](#).

We are looking forward to the interesting results of this proficiency test and hope for active participation. Should there be any questions, please do not hesitate to contact us.

Sincerely yours,
Dr.-Ing. Laura Brosig & Björn Maxeiner (Olfasense GmbH)
and Dr. Wolfgang Horn (BAM)



Dr.-Ing. Laura Brosig
Head of Proficiency Testing
T: +49 (0)431 22012-110
E: qaqc@olfasense.com or
lbrosig@olfasense.com



Björn Maxeiner
Director & Deputy Head of
Proficiency Testing
T: +49 (0)431 22012-22
E: qaqc@olfasense.com

Find our more on www.olfasense.com

olfasense ::::