PAVUS
FIRE TESTING INSTITUTE

Order No.: Z210240386

PAVUS, a.s.
AUTHORIZED BODY 216
NOTIFIED BODY 1391
ACCREDITED TESTING LABORATORY
EGOLF MEMBER

L 1026

FIRE TESTING LABORATORY VESELÍ NAD LUŽNICÍ
Testing Laboratory No. 1026 accredited by ČIA
Workplace Veselí nad Lužnicí

INFORMATIVE REACTION TO FIRE TESTS REPORT

No. Pr-25-1.048-En

Issued on 2025-03-04

For product

Fixation agent
PROTOX AS25

Sponsor: **PROTOX ApS**
Fabriksvej 19
6000 Kolding
Denmark

Test method:

ISO 11925-2
» Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame - Part 2: Single-flame source test «

Report contains: 5 pages (4 text pages + 1 annex)

No. of copies: 2
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1 INTRODUCTION

Reaction to fire tests of the product PROTOX AS25 were performed based on the order of the company PROTOX ApS in Fire Testing Laboratory PAVUS, a.s. Veselí nad Lužnicí.

In case of dispute, the Czech version of the text shall prevail.

The tests have been prepared, performed and evaluated on the following background papers:

[1] ISO 11925-2:2020 Reaction to fire tests – Ignitability of building products subjected to direct impingement of flame – Part 2: Single-flame source test

[2] EN 13238:2010 Reaction to fire tests for building products – Conditioning procedures and general rules for selection of substrates

[3] Cover form delivered by the sponsor

[4] ILAC-G17:01/2021 Guidelines for Measurement Uncertainty in Testing

[5] JCGM 100:2008 GUM 1995 with minor corrections, Evaluation of measurement data – Guide to the expression of uncertainty in measurement (available from www.BIPM.org)

For the purposes of this report the definitions stated in [1] and [2] are valid together with following abbreviations:

ČIA Český institut pro akreditaci, o.p.s. (Czech Accreditation Institute)
ATL accredited testing laboratory
FTL fire technical laboratory

2 TEST SUBJECT

Acc. to [3]: Product name: PROTOX AS25
Batchnumber: 2402539
Manufacturer: is known to the ATL No. 1026

Specimen number	Specimen description	Thicknes (mm)	Composition
3a - 019/25.4	OSB wood + PROTOX AS25	3	Soft and hardwoods, PROTOX AS25
3b - 019/25.4	OSB wood	3	Soft and hardwoods
4a - 020/25.4	Fibrecement board + PROTOX AS25	13	Portland cement, chalk, sand, PROTOX AS25
4b - 020/25.4	Fibrecement board	13	Portland cement, chalk, sand

Application: PROTOX AS25 is applied at 133 g/m² to OSB wood and 111 g/m² to fibrecement board

Product use: Fixation agent for asbestos containing surfaces
Sampling procedure: by sponsor without ATL participation
Date of specimen delivery: 2025-02-14
Conditioning: according [2]

The subjects of the test were 12 test specimens PROTOX AS25 with dimension of 250 mm x 90 mm with substrate.

3 TEST PERFORMANCE

3.1 General

Tests were performed according to [1] clause 7.3.3.1 - Surface exposure
Deviations from the test method: yes, **only surface exposure was tested, only 3 specimens of each species were tested - art. 5.4.1 was not met.**
Used testing and gauging equipment is listed in Annex A.
The tests were performed in the room V218 of FTL on the 27th February 2025. The ambient air temperature was 18 °C at 35 % of relative air humidity.

3.2 Test methods

Surface exposure.

The surface of individual vertically oriented samples in order 1 to 6 is exposed to the flame in the vertical axis of the test specimen, 40 mm above its bottom edge. A small burner moves at 45° angle horizontally to the test specimen until the flame reaches a pre-determined contact point. From the first contact moment of the specimen with the flame, the small burner is allowed to operate for 30 seconds and it is removed.

The following items are evaluated: the flame spread above 150 mm from the contact point of the test flame; the time, in which it is occurred; the ignition of the filter paper located under the specimen. The possible flame spread, within 60 seconds after applying the small burner flame, is monitored.

4 TEST RESULTS

Expression of the results according to [1] cl. 8:

4.1 **Surface exposure according to [1] cl. 7.3.3.1** - substrate OSB wood

Specimen number	Specimen description	Specimen ignition (yes - no)	Height of flame tip approx. (mm)	Time for the flame to reach a distance of 150 mm above the small burner impingement (s)	Filter paper ignition (yes - no)
3a - 1_019/25.4	OSB wood + PROTOX AS25	yes	40	-	no
3a - 2_019/25.4	OSB wood + PROTOX AS25	yes	40	-	no
3a - 3_019/25.4	OSB wood + PROTOX AS25	yes	40	-	no
3b - 4_019/25.4	OSB wood	yes	40	-	no
3b - 5_019/25.4	OSB wood	yes	40	-	no
3b - 6_019/25.4	OSB wood	yes	40	-	no

After the contact of the small flame with the specimen, it was burning in the high of approximately 40 mm. The filter paper did not burn.

4.2 **Surface exposure according to [1] cl. 7.3.3.1** - substrate fibrecement board

Specimen number	Specimen description	Specimen ignition (yes - no)	Height of flame tip approx. (mm)	Time for the flame to reach a distance of 150 mm above the small burner impingement (s)	Filter paper ignition (yes - no)
4a - 1_020/25.4	Fibrecement board + PROTOX AS25	no	-	-	no
4a - 2_020/25.4	Fibrecement board + PROTOX AS25	no	-	-	no
4a - 3_020019/25.4	Fibrecement board + PROTOX AS25	no	-	-	no
4b - 4_020/25.4	Fibrecement board	no	-	-	no
4b - 5_020/25.4	Fibrecement board	no	-	-	no
4b - 6_020/25.4	Fibrecement board	no	-	-	no

After the contact of the small flame with the specimen, the specimen did not burn. The filter paper did not burn.

4.3 Application of Test Results

The test results apply to the behaviour of the product's test bodies to be tested under specific test conditions and they are not meant the only criterion to assess the possibility of fire hazard of the product when used.

The Report and Annex sheets
are valid with the embossed stamp only.

POŽÁRNÍ ZKUŠEBNA VESELÍ NAD LUŽNICÍ
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Elaborated by: Sobotová
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ATL Manager

Your ref. / letter:
Transacted by / contact: *Ing. Lenka Sobotová / 00420 381 477 410*
Our ref. / letter: *063/sob/25 from day 2025-03-10*

PROTOX ApS
Fabriksvej 19
6000 Kolding
Denmark

SUBJECT: **Announcements of the order termination**

We announce you the termination of your order:

No. Z210240386 - please find the Test reports enclosed:

- Pr-24-1.048-En

Conclusion:
Specimens 3a and 3b show identical results and also 4a and 4b show identical results when tested according to EN ISO 11925-2, surface exposure for 60 seconds. Based on these test results, no influence of PROTOX AS25 on the test result according to EN ISO 11925-2 was found.

Yours sincerely

PAVUS, a.s.
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(5)

Ing. Lenka Sobotová
Technical Manager

The reports were personally received on 2025-03-11 by Mr. Herman van Damme: ....

ANNEX A: TESTING AND MEASURING EQUIPMENT, MEASUREMENT UNCERTAINTY

Testing equipment:	Registration number:
Test chamber	0061
Test hood with ventilation system	0061
Test piece fastening device	0061
Small gas burner with a fine valve	0061
45° angle gauge	0061
Pattern of specimen dimension	0061
Flame meter	0061
Burner spacers	0061
Desiccator	0070
Conditioning air chamber PO 2	0125

Measuring equipment:	Metrological registration number:
Stop-watch	3 05 13
Thermo-hygro-baro-graf D 4130	3 13 08
Calliper extol premium	3 01 68
Tape measure SUPRA 5 m	3 01 67
Digital balance KERN EW 600-2M	3 04 13
Thermoanemometer FV	3 08 23
Datalogger ALMEMO 2590-9	3 10 32

Metrological relationships of the device are specified in the metrological registration card of the device, which is expressly identified by the metrological registration number of the device.

Measured quantity	Extended measurement uncertainty
Time	1 s
Ambient air temperature	< 2 °C
Ambient air relative humidity	3 %
Linear measures	0.1 mm
Air flow rate	0.1 m/s

The reported expanded uncertainties of measurement are stated as the standard uncertainties of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95 %, see [4] and [5].