



Order No.: Z210250321

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ACCREDITED TESTING LABORATORY
EGOLF MEMBER



FIRE TESTING LABORATORY VESELÍ NAD LUŽNICÍ

Testing Laboratory No. 1026 accredited by ČIA according to ČSN EN ISO/IEC 17025:2018
workplace Veselí nad Lužnicí

**REACTION TO FIRE
TESTS REPORT**

No. Pr-25-1.189-En

Issued on 2025-11-27

For specimen

Fixation agent

PROTOX AS50

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

Test method:

Determining the ignitability Subjection to direct impingement of flame
– Single-flame source test
EN ISO 11925-2

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1 INTRODUCTION

Reaction to fire tests of the specimens PROTOX AS50 had been performed in the Fire Testing Laboratory Veselí nad Lužnicí following the order of the company PROTOX ApS.

The tests were prepared, performed and evaluated on the basis of following documents:

- [1] EN 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] ILAC-G17:01/2021 Guidelines for Measurement Uncertainty in Testing
- [4] 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)
- [5] Information provided by the sponsor

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)

TL testing laboratory

2 TESTS SUBJECT

According to [5]: Product name: PROTOX AS50
 Batchnumber: 1802564
 Manufacturer: PROTOX ApS
 Fabrikvej 19
 6000 Kolding
 Denmark

Specimen number	Specimen description	Thickness (mm)	Composition
Z210250321/080/25.4	Fibrecement board	13	Portland cement, chalk, sand
Z210250321/081/25.4	Fibrecement board + PROTOX AS50	13	Portland cement, chalk, sand, PROTOX AS50

Application: PROTOX AS50 is applied at 111 g/m² to fibrecement board

Product use: Fixation agent for asbestos/fibre containing surfaces

Product sample delivery date: 2025-10-22

Sampling procedure: producer without participation of TL

Conditioning: according to [2]

The Fire Testing Laboratory Veselí nad Lužnicí did not participate in the selection of samples.

The subjects of the test were 6 test specimens PROTOX AS50 with dimension of 250 x 90 x 13 mm with fibrecement substrate acc. [2].

3 TESTS 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 cl. 5 of this report.

The tests were performed in the room V218 of TL on the 26th November 2025. The ambient air temperature was 19 °C at 31 % of relative air humidity.

3.2 Test methods

Surface exposure.

The surface of individual vertically oriented samples 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.

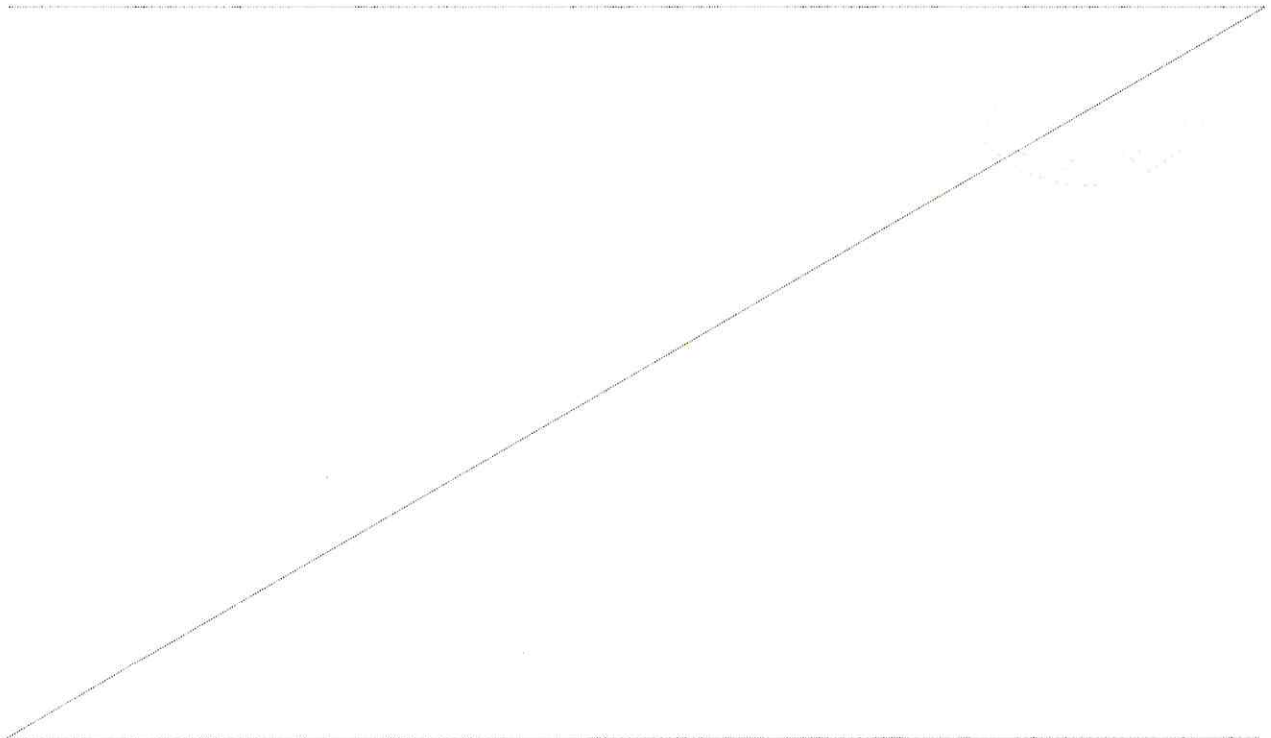
4 TESTS RESULTS

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

4.1 Surface exposure according to [1] cl. 7.3.3.1

Specimen number	Direc.	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)
Z210250321/080/25.4_1	↑	no	-	-	no
Z210250321/080/25.4_2	↑	no	-	-	no
Z210250321/080/25.4_3	↑	no	-	-	no
Z210250321/081/25.4_4	→	no	-	-	no
Z210250321/081/25.4_5	→	no	-	-	no
Z210250321/081/25.4_6	→	no	-	-	no

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



5 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 Olympia SPORT	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 A935	3 08 23
Datalogger ALMEMO 2890-9	3 10 08

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 [3] and [4].

6 FINAL PROVISIONS

The results apply to the product samples as received.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.


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End of the report
