



AB 023

Instytut Techniki Budowlanej (ITB)

Group of Testing Laboratories

accredited by the Polish Centre for Accreditation

Accreditation Certificate No. AB 023

TEST REPORT

LZM03-02513/22/Z00NZM

Client:

ALBOND Aluminyum Sanayi ve Ticaret A.S.
Hatip Mah. Ali Osman Celebi Bulvari No 140
59860 Corlu – Tekirdag, Turkey

Product name:

ALBOND FR

(as specified by the Client)

ALBOND 9000 A2

Date of issue:

09 May 2023

Building Materials Laboratory (LZM)

materialy@itb.pl

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1. Information on the tests

Test start date: 11.04.2023

Test completion date: 02.05.2023

Test location:

In the laboratory LZM , in the following location: Filtrowa 1; 00-611 Warszawa.

2. Product

2.1. Information provided by the Client

Product: Aluminium Composite Panel

1. ALBOND FR
2. ALBOND 9000 A2

Product manufacturer: ALBOND ALÜMINYUM SAN. Ve TIC. A.Ş
Hatip mah. Ali Osman Celebi Bulvari No. 140 Corlu-
Tekirdag, Turkey

Declared range of application: External and internal cladding, ventilated facade application

Other product information:

Aluminium Composite Panels with PVDF coating.

3. Test item, sample

3.1. Information provided by the Client

Aluminium Composite Panels ALBOND protected with PVDF coating.

Information obtained based on sampling protokol No 221012009

PVDF coating, batch 20220523112008; Line - 3

3.2. Information obtained based on visual inspection in the Laboratory

Acceptance of the test item into the laboratory:

Date: 24.03.2023

Acceptance protocol: LZM01-02513/22/Z00NZM

Condition of the test item:

A sample was provided in a condition and quantity suitable for testing.

Description of the test item:

Aluminium sheet samples with dimensions 100x150 mm and composite panels with technological cutter (photo 1).

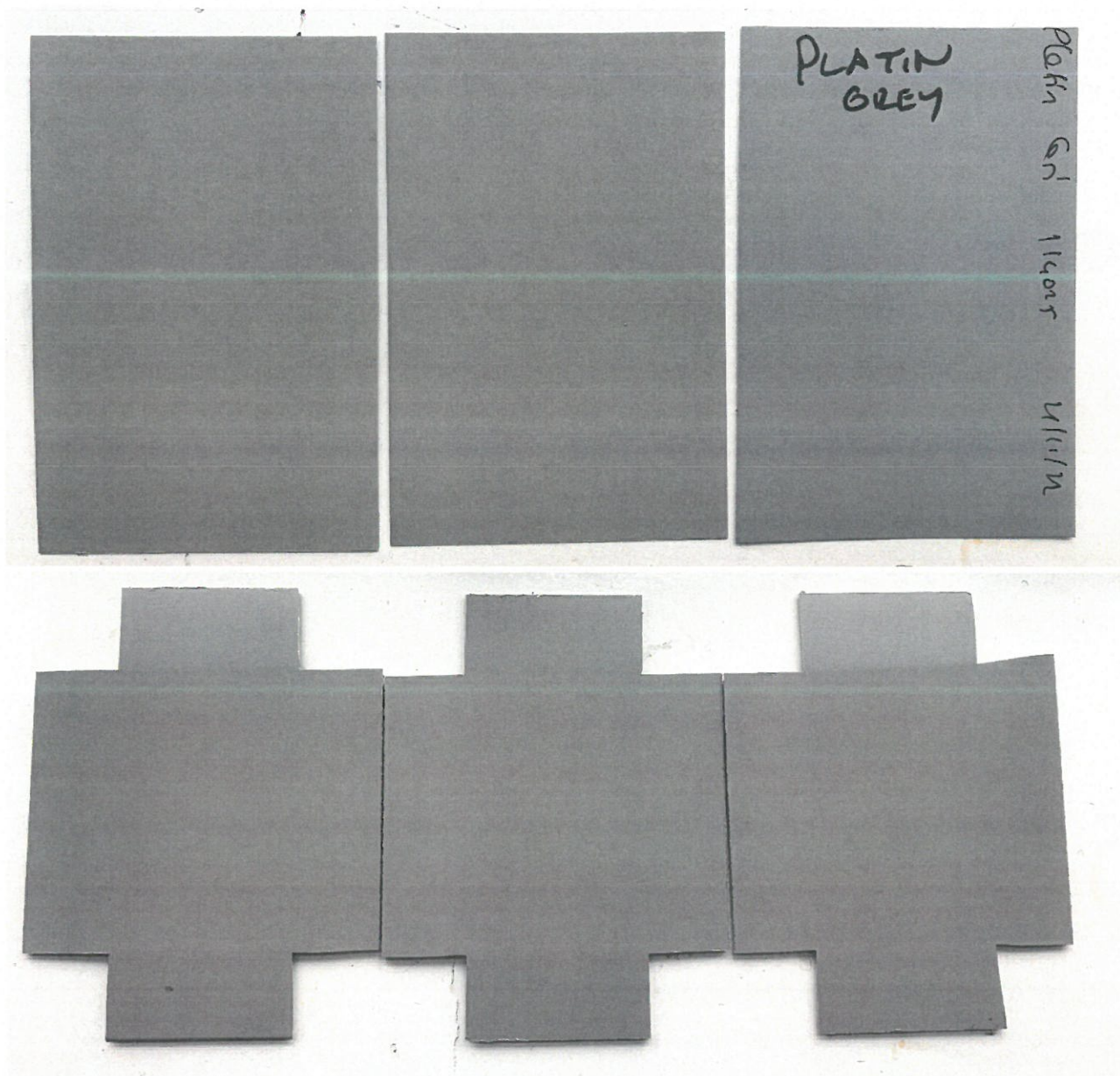


Photo 1. PVDF coating.

4. Test results

4.1. Test resistance to acetic acid salt spray - Test AASS

4.1.1. Test method

PN-EN ISO 9227:2017-06

Test conditions:

Test conditions: chamber air temperature $35 \pm 2^\circ\text{C}$, drop 1.2 ml/h, brine pH $3.1 \div 3.3$

Concentration of salt solution: 5% NaCl (50g NaCl / 1l distilled water)

Type and purity of the water and salt used: water with a conductivity of no more than $20 \mu\text{S}$, sodium chloride, cz.a.

Samples dimensions: flat sheets 150x100 mm and samples bent at $90 \pm 10^\circ$.

Duration of testing - 500 hours.

After exposure the samples were washed with DEMI water.

The scope and method of assessing surface change:

Assessment of change: PN-EN ISO 4628-2:2016-03; PN-EN ISO 4628-4:2016-03

The changes in appearance were assessed visually after the end of the exposure.

4.1.2. Results

No. samples	Test results: Assessment of change by PN-EN ISO 4628-2:2016-03	Test results: Assessment of change by PN-EN ISO 4628-4:2016-03
PVDF coating		
<u>flat sheets</u>	<u>on a flat surface</u>	<u>on a flat surface</u>
Sample no. 1	blistering 0(S0)	cracking 0(S0)
Sample no. 2	blistering 0(S0)	cracking 0(S0)
Sample no. 3	blistering 0(S0)	cracking 0(S0)
<u>flat sheet bent at 90±10°</u>	<u>at the bending point</u>	<u>at the bending point</u>
Sample no. 1	blistering 0(S0)	cracking 0(S0)
Sample no. 2	blistering 0(S0)	cracking 0(S0)
Sample no. 3	blistering 0(S0)	cracking 0(S0)

4.2. Measurement uncertainty

4.2.1. Research methods giving qualitative results

Due to the nature of studies involving visual evaluation, it is not possible, at the current level of knowledge, to specify the uncertainty related to the presented results.

5. Disclaimers

The Testing Laboratory declares that the test results relate only to the sample received.

The Test Report cannot be reproduced in any other form than as a whole without written permission of the Laboratory.

The Test Report does not replace documents required for placing construction products on the market or making them available.

This report has been issued in 3 counterparts, including two for the Ordering Party and one for ITB.

6. Assessment of the conformity of test results with the criteria

Tab. 1. Assessment results.

Tested property	Tested property	Test result by PN-EN ISO 9428- 2:2016 PN-EN ISO 9428- 4:2016	Assessment criterion ITB KOT-2019/1128 wyd. 1 ITB KOT-2019/1129 wyd. 1	Assessment of the conformity of the result with the criterion*
PVDF coating	Test resistance to acetic acid salt spray	Blistering 0(S0) Cracking 0(S0)	no damage	yes

* The parties agreed that in assessing the performance, according to standard ITB KOT-2019/1128 and ITB KOT-2019/1129 the simple acceptance rule is applied. This means that the acceptance limits are equal to the tolerance limits shown in the above-mentioned document.

The assessment of the conformity of the test result with the criteria applies to the test sample. Factors influencing the risk associated with the conformity assessment carried out the uncertainty of measurement as presented in section 4.1 of this report.

7. Annexes:

Photographic documentation after AASS Tests.

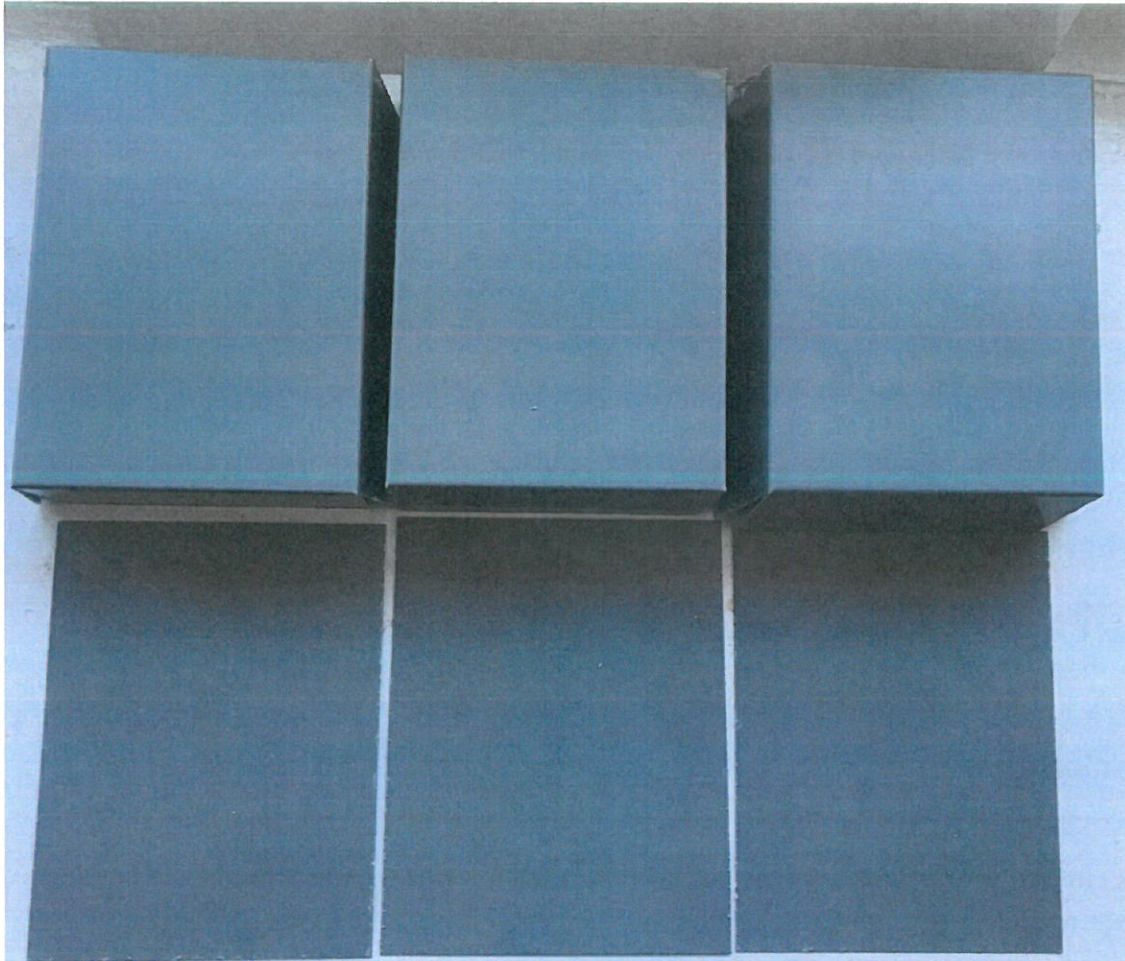


Photo 2. PVDF coating after AASS Test.

Person responsible for tests

Person authorising the report

.....**M.Sc.eng. Dagmara Warsicka**.....

.....**M.Sc.eng. Adrian Strak**.....

09.05.2023



date, signature

09.05.2023

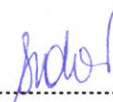


date, signature

Head of the Laboratory LZM

PhD. eng. Ewa Sudol

09.05.2023



date, signature

END OF THE REPORT
