



**METALTEK TEKNOLOJİ
KİMYASAL URUNLER LTD. STİ.
TEST LABORATORY**

Address: Ostim Mah. Alinteri Bulvarı SS Gul 86 San. Sit. No:1/49
06370 Ostim/ANKARA/TURKEY
Phone: 0 312 385 52 01-03 **Fax:** 0 312 385 52 02

TEST REPORT



AB-0547-T

3233-ENG.

02-20

Customer Name / Address

BSİ AYDINLATMA ELEK. ELEKT. SAN. VE TİC. A.Ş.
Konutkent Mah. 3029 Cad. No: 3/91 06810, Çankaya / ANKARA

Order No / Date

4259 / 23.01.2020

Name and Identity of the Test Sample

Powder Paint Coated Aluminum Panel

The Date of Receipt of the Test Sample

22.01.2020

Remark(s)

Date of the Test

23.01.2020 – 03.02.2020

Number of Page of the Report

4

METALTEK TEKNOLOJİ KİMYASAL URUNLER LTD. STİ. had been accredited by TÜRKAK under registration number AB-0547-T for EN ISO/IEC 17025:2017 as test laboratory.

Turkish Accreditation Agency (TÜRKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Seal

Date of the Issue

Person in Charge of the Test

Writer of the Report

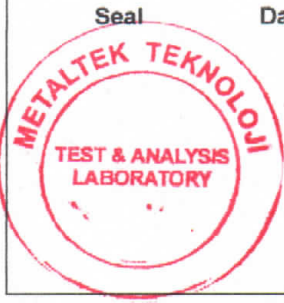
Approval

05.02.2020

Eda SARI
Food Engineer
Test Operator

Gözde GÖKTAŞ
Chemist
Report Writing Manager

Tuncay KATIRCI
Chemical Engineer
Lab. Manager



 METALTEK Test & Analysis Laboratory	METALTEK TEKNOLOJİ KİMYASAL URUNLER LTD. STİ. TEST LABORATORY	
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1. CUSTOMER DEMAND:

The test below given table must be carried out on the samples that are identified at the section 2. The test results must be evaluated and reported after the test.

Referrer Standard	Name of the Test	Test Standard	Evaluation Standard	Intermediate Control Time	Test Duration
---	Neutral Salt Spray Test	EN ISO 9227	EN ISO 4628-2 EN ISO 4628-3 EN ISO 4628-4 EN ISO 4628-5 EN ISO 4628-8 EN ISO 2409	---	250 hours

2. SAMPLE UNDER THE TEST:

All information regarding the samples have been declared by the customer below given table.

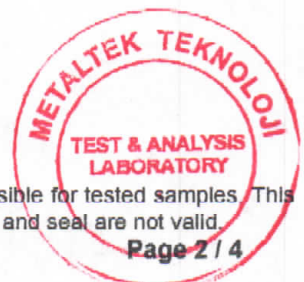
Name of the Sample	Substrate Material	Pre-Treatment Process	Base Coat	Topcoat	Brand / Model	Preparation / Condition of the Sample	Dimension / Piece
Panel	Aluminum	---	---	Powder Paint	---	By the customer	151x102x2 mm / 5 Pieces

3. TEST AND EVALUATION STANDARDS:

EN ISO 9227	Corrosion Tests in Artificial Atmospheres — Salt Spray Tests
EN ISO 2360	Non-Conductive Coatings on Non-Magnetic Electrically Conductive Base Metals - Measurement of Coating Thickness - Amplitude-Sensitive Eddy-Current Method
EN ISO 2409	Paints and Varnishes - Cross-Cut Test
EN ISO 4628-2	Paints and Varnishes - Evaluation of Degradation of Paint Coatings - Designation of Quantity and Size Defects, and of Intensity of Uniform Changes in Appearance - Part 2: Assessment of Degree of Blistering
EN ISO 4628-3	Paints and Varnishes - Evaluation of Degradation of Paint Coatings - Designation of Quantity and Size Defects, and of Intensity of Uniform Changes in Appearance - Part 3: Assessment of Degree of Rusting
EN ISO 4628-4	Paints and Varnishes - Evaluation of Degradation of Paint Coatings - Designation of Quantity and Size Defects, and of Intensity of Uniform Changes in Appearance - Part 4 : Assessment of Degree of Cracking
EN ISO 4628-5	Paints and Varnishes - Evaluation of Degradation of Paint Coatings - Designation of Quantity and Size Defects, and of Intensity of Uniform Changes in Appearance - Part 5 : Assessment of Degree of Flaking
EN ISO 4628-8	Paints and Varnishes - Evaluation of Degradation of Paint Coatings - Designation of Quantity and Size Defects, and of Intensity of Uniform Changes in Appearance - Part 8: Assessment of degree of Delamination and Corrosion Around a Scribe

The test results are only valid for tested samples. Sampling is not performed by our laboratory, laboratory is not responsible for tested samples. This report shall not be reproduced other than in full except with the permission of the laboratory. Test report without signature and seal are not valid.

FP.09.03 Rev.No.: 01 Issue Date: 02.12.2019



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4. TEST EQUIPMENT INFORMATION:

Test Equipment Name	Calibration Validity Period	Manufacturer
Neutral Salt Spray Cabinet MT-SIS-087	21.01.2020 / 21.01.2021	Q-LAB
Conductivity meter MT-İLT-156	Calibration is done before every test.	HANNA
pH Meter MT-PHM-110	Calibration is done before every test.	THERMO SCIENTIFIC
Cross-Cut Blade MT-KSM-107 (2 mm)	20.06.2018 / 20.06.2021	BYK
Film Thickness Meter MT-KAL-119	31.05.2019 / 31.05.2020	DEFELSKO

5. TEST RESULTS:

5.1. Test results before the test:

Evaluation Criteria	Test Results	
	Sample-2	
Film Thickness, μm	78.3	
Adhesion Degree	Class 0	

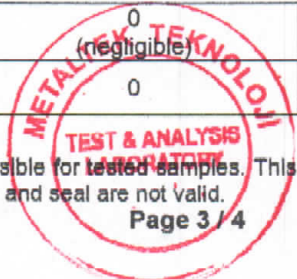
5.2. Test results after the test:

Evaluation Criteria	Test Results		
	Sample-3	Sample-4	Sample-5
Film Thickness, μm	87.5	88.0	83.2
Adhesion Degree	Class 0	Class 0	Class 0
Degree of Blistering	0(S0)	0(S0)	0(S0)
Degree of Rusting	Ri0	Ri0	Ri0
Degree of Cracking	0(S0)	0(S0)	0(S0)
Degree of Flaking	0(S0)	0(S0)	0(S0)
Degree of Delamination Around the Scribe, mm	0 (negligible)	0 (negligible)	0 (negligible)
Degree of Corrosion Around the Scribe, mm	0	0	0

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- Note-1:** Uncertainty measurement of the film thickness test was calculated by our laboratory is $\pm 1.8 \mu\text{m}$ for between 0 – 250 μm range.
Note-2: There is not any abnormality or incident occurring during the entire test.
Note-3: Tested samples were sent to the customer with the test report.
Note-4: Appendices of the test report are only sent to customer by e-mail. They are not submitted in addition to the original test report.

Appendix-1/2: Test photographs

Appendix-2/2: Photographs of the Reference (These photographs are published in the original test standards)

The test standards that are shown with * aren't in our accreditation test scope.



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