





 <b>METALTEK</b> Test & Analysis Laboratory	<b>METALTEK TEKNOLOJİ</b> <b>KİMYASAL URUNLER LTD. STİ.</b> <b>TEST LABORATORY</b>  <b>Address:</b> Ostim Mah. Alinteri Bulvari SS Gul 86 San. Sit. No:1/49 06370 Ostim/ANKARA/TURKEY <b>Phone:</b> 0 312 385 52 01-03 <b>Fax:</b> 0 312 385 52 02  <b>TEST REPORT</b>	 <b>AB-0547-T</b> <b>3570-2/2</b> <b>12-20</b>
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<b>Customer Name / Address</b>	<b>KÜRKÇÜOĞLU JENERATÖR SAN. VE TİC. A.Ş.</b> Sanayi Mah. Uran Sok. No: 3/1 Pendik / İSTANBUL			
<b>Order No / Date</b>	4751 / 27.08.2020			
<b>Name and Identity of the Test Sample</b>	Poliester Powder Paint Coated Steel Panel			
<b>The Date of Receipt of the Test Sample</b>	29.08.2020			
<b>Remark(s)</b>	INTERMEDIATE CONTROL REPORT (3570-1/1K) HAS BEEN PUBLISHED AND SUBMITTED PREVIOUSLY.			
<b>Date of the Test</b>	08.09.2020 – 30.11.2020			
<b>Number of Page of the Report</b>	4			
METALTEK TEKNOLOJİ KİMYASAL URUNLER LTD. STİ. had been accredited by TURKAK under registration number AB-0547-T for EN ISO/IEC 17025:2017 as test laboratory.				
Turkish Accreditation Agency (TURKAK) 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.				
<b>Seal</b>	<b>Date of the Issue</b>	<b>Person in Charge of the Test</b>	<b>Writer of the Report</b>	<b>Approval</b>
	01.12.2020	<b>Nurehan YEŞİLYURT</b> Chemist Test Operator	<b>Gözde GÖKTAŞ</b> Chemist Report Writing Manager	<b>Tuncay KATIRCI</b> Chemical Engineer Lab. Manager
				

 <b>METALTEK</b> Test & Analysis Laboratory	<b>METALTEK TEKNOLOJİ</b> <b>KIMYASAL URUNLER LTD. STİ.</b> <b>TEST LABORATORY</b>	
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#### 1. CUSTOMER DEMAND:

The tests 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 tests.

Referrer Standard	Name of the Test	Test Standard	Evaluation Standard	Intermediate Control Time	Test Duration
---	Corrosion Tests in Artificial Atmospheres — Salt Spray Tests - NSS	TS 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	1500 <sup>th</sup> hour	2000 hour

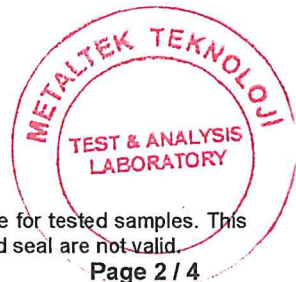
#### 2. SAMPLE UNDER THE TEST:

All information regarding the samples has 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	Steel	---	Cataphoresis	Poliester Powder Paint	---	By the Customer	150x100x2 mm / 6 Pieces

#### 3. TEST AND EVALUATION STANDARDS:

EN ISO 9227	Corrosion Tests in Artificial Atmospheres — Salt Spray Tests
EN ISO 2178	Non-Magnetic Coatings on Magnetic Substrates - Measurement of Coating Thickness - Magnetic 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 Craking
*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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	<b>Address:</b> Ostim Mah. Alinteri Bulvarı SS Gul 86 San. Sit. No:1/49 06370 Ostim/ANKARA/TURKEY <b>Phone:</b> 0 312 385 52 01-03 <b>Fax:</b> 0 312 385 52 02	<b>AB-0547-T</b>
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	<b>12-20</b>	

#### 4. TEST EQUIPMENT INFORMATION:

Test Equipment Name	Calibration Validity Period	Manufacturer
Neutral Salt Spray Test Cabinet MT-SİS-087	21.01.2020 – 21.01.2022	Q-LAB
Conductivity Meter MT-ILT-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) MT-KSM-108 (3mm)	21.05.2020 – 21.05.2021	BYK
Film Thickness Meter MT-KAL-119	29.05.2020 – 29.05.2021	DEFELSKO

#### 5. TEST RESULTS:

##### 5.1. The Results Before the Tests:

Evaluation Criteria	Test Results	
	Sample-5	Sample-6
Film Thickness, $\mu\text{m}$	75.43	129.2
Adhesion Degree	Class 0	Class 0

##### 5.2. Test Results After the Tests:

Evaluation Criteria	Requirements Determined by the Laboratory	Test Results		
		Sample-1	Sample-2	Sample-3
Film Thickness, $\mu\text{m}$	---	113.66	108.92	101.5
Adhesion Degree	$\leq$ Class 2	Class 0	Class 0	Class 0
Degree of Blistering	$\leq 2(S_2)$	0(S0)	0(S0)	0(S0)
Degree of Rusting	$\leq R_{i2}$	Ri0	Ri0	Ri0
Degree of Cracking	0(S0)	0(S0)	0(S0)	0(S0)
Degree of Flaking	0(S0)	0(S0)	0(S0)	0(S0)
Delamination Around the Scribe, mm	---	1.2	1.4	1.7
Corrosion Creepage Around the Scribe, mm	Max. 2.0 mm	0.7	0.9	1.7
<b>CONCLUSION</b>		<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Test results were evaluated according to the "Basic Decision Rule" and declaration of suitability was made according to the limit value without evaluating the confidence level and measurement uncertainty.

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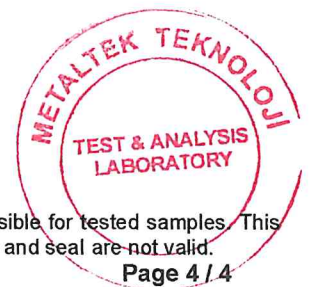
	<p><b>METALTEK TEKNOLOJİ</b> <b>KİMYASAL URUNLER LTD. STİ.</b> <b>TEST LABORATORY</b></p> <p><b>Address:</b> Ostim Mah. Alinteri Bulvari SS Gul 86 San. Sit. No:1/49 06370 Ostim/ANKARA/TURKEY <b>Phone:</b> 0 312 385 52 01-03 <b>Fax:</b> 0 312 385 52 02</p> <p><b>TEST REPORT</b></p>	 <table><tr><td><b>AB-0547-T</b></td></tr><tr><td><b>3570-2/2</b></td></tr><tr><td><b>12-20</b></td></tr></table>	<b>AB-0547-T</b>	<b>3570-2/2</b>	<b>12-20</b>
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**Note-1/5:** Uncertainty measurement of the film thickness test was calculated by our laboratory is  $\pm 1.8 \mu\text{m}$  for between 0 – 250  $\mu\text{m}$  range.  
**Note-2/5:** Uncertainty measurement of the delamination and corrosion creepage around the scribe were calculated by our laboratory are  $\pm 0.2 \text{ mm}$ .  
**Note-3/5:** There is not any abnormality or incident occurring during the entire test.  
**Note-4/5:** Tested samples were sent to the customer with the test report.  
**Note-5/5:** 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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