Certificate of Accreditation



PRA World Ltd

Testing Laboratory No. 9943

Is accredited in accordance with International Standard ISO/IEC 17025:2017 – General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope specified in the schedule to this certificate, and the operation of a management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017). The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued.

The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements.

Matt Gantley, Chief Executive Officer United Kingdom Accreditation Service

Initial Accreditation: 8 November 2017 Certificate Issued: 25 January 2024







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Technical Report



Acetic Salt Spray Resistance

For

FUTURAL (UK) LTD

Date Received 04 April 2024

Date lab activities 09 April 2024 – 02 July 2024

Client Futural (UK) LTD

128 City Road,

London, EC1V 2NX

United Kingdom

Work Requested Acidified Salt Spray Resistance

Samples Submitted Two colour samples of Futural product

Work Carried out by David Corrigan

Senior Technician

Approved by Dr Laura Pilon

Authorised Signatory

This report shall not be reproduced except in full without approval of the laboratory. Results relate only to the item(s) tested and apply to the sample(s) as received.

PRA is not responsible for data supplied by the customer. Information supplied by the customer and used in this analysis may affect the validity of results.

PRA Ref: 77780-1153b

4 October 2024

PRA World Limited

PRA World Limited, Pera Business Park, Nottingham Road, Melton Mowbray, Leicestershire LE13 OPB, United Kingdom

Phone: +44 (0)1664 501212 Email: coatings@pra-world.com <u>www.pra-world.com</u>

Registered office as above. Registered in England 10393032



9943



1 Introduction

Two samples of the Futural product, 3mm PVDF pre-coated aluminium panels were received from the client and were tested as received.

- 1. Sample 1
- 2. Sample 2

Test results reported herein that are identified with a ‡ symbol are not UKAS accredited.

2 Results

2.1 Salt spray BS EN ISO 9227: 2022 (Continuous - Acetic acid)¹

	Dry Film	Resul	ts	BS EN 1396:2023 ‡	
Sample	Thickness (µm)	Under Corrosion Creep (mm) Corrosion Face Blistering Corrosion Resistance Index	Corrosion Resistance Index ²	Pass/Fail	
Sample 1	44.6	1.4	None	3	Pass
Sample 2	30.4	0.9	None	3	Pass

¹ BS EN ISO 9227:2022 is technically equivalent to EN 13523-8:2017 for the assessment of salt spray resistance

² Classification in accordance with the requirements of BS EN 1396:2023 Table C.6.5

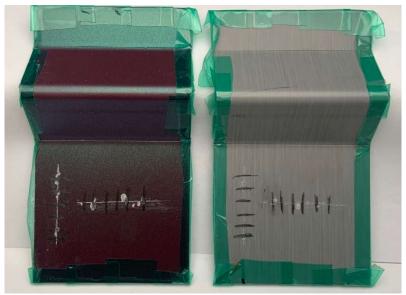


Figure 1 - Sample 1 (left) and Sample 2 (right) after exposure



3 Test Procedures

3.1 Salt spray BS EN ISO 9227: 2022 (Continuous, Acetic acid)

Corrosion resistance was assessed in accordance with BS EN ISO 9227:2022 (acetic acid salt spray method). (Sodium chloride 99.7%. Water grade 2). Coated panels were supplied by the customer. Due to the thickness of the aluminium substrate (3mm), a 2T (6mm) radii bend was made in the panel rather than the variable radius 1T to 3T bend prescribed in EN 13523-8. The panels were conditioned at 23°C/50% RH overnight. The coating thickness was measured before testing according to BS EN ISO 2808-7C (eddy current). Panel edges were protected using chemical resistant tape, and a T scribe was made in the coating before testing.

The test duration was 1000 hours. Panels were tested at an angle of 20° from the vertical. The cabinet temperature was 35°C, the salt concentration was 5% weight, and the pH of the collected salt solution was in the range 3.1 - 3.3.

After the salt spray exposure, assessments for under corrosion creep (BS EN ISO 4628-8:2012) and blistering (BS EN ISO 4628-2:2016) were made and the results were classified in accordance with BS EN 1396:2023 Table C.6.5 shown below[‡].

BS EN 1396:2023

EN 1396:2023 (E)

C.6.5 Acetic acid salt spray fog resistance (accelerated corrosion test)

When tested for 500 h in accordance with EN 13523-8 the average under creep should not exceed the values specified in Table C.5.

Table C.5 — Maximum values for average under creep and face blistering after accelerated corrosion testing

Test criterion	Testing time h	Corrosion resistance index		
		1	2	3
Under creep corrosion mm	500	4	2	1
	1 000	_	3	2
Face blistering	500	none		
(EN ISO 4628-2)	1 000	B2 (S2)		

End of Report