RYANFIRE Ryanspan + Ryanbatt 502

Test Report :: ASTM-B117 Salt Spray

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Release Date	11th October, 2022
Revision	A

Test Details

Lab Information

Company Name	HALT & HASS Consulting NZ Ltd
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Established	2005
Tested By	Donovan Johnson

Client Information

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Contact	Ben Graves

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Applicability

The test results attained, and presented within this test report relate solely to the Ryanspan & Ryanbatt 502 Samples from RYANFIRE.

Executive Summary

Introduction

Salt Spray testing has been performed on a single sample of both the RYANFIRE Ryanspan and Ryanbatt products. Testing has been performed to gauge the performance of the product after exposure to corrosive atmosphere when compared to the C3 environment used in the building industry.

The products contain no metal components, therefore this test was conducted purely to show no corrosion would occur on and material used in the products.

AS/NZS 2312:2014 Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings (part 1 & 2) describes the C3 category as being medium, and generally covers the area 50-1000m from the shoreline, but can extend over 50km inland with wind blown salt fog.

A 240 hour exposure was conducted, this is sufficient to demonstrate there are no parts contained in the product that will be subject to corrosion, when exposed to the C3 environment.

Reference Standards

Standard Number	Revision	Description	Clauses Applied	Hours
ASTMB117	2011	Standard Practice for Operating Salt Spray (Fog) Apparatus	All	240

Sample Results

Product	Serial	Standard	Test	Result
Ryanspan	1	ASTMB117	Salt Spray @ 35ºC, 5% sodium chloride for 240 hours.	Pass
Ryanbatt 502	2			Pass

Test Summary

Products Tested

Sample	Name	Configuration
1	RYANFIRE Ryanspan	Loose
2	RYANFIRE Ryanbatt 502	Loose

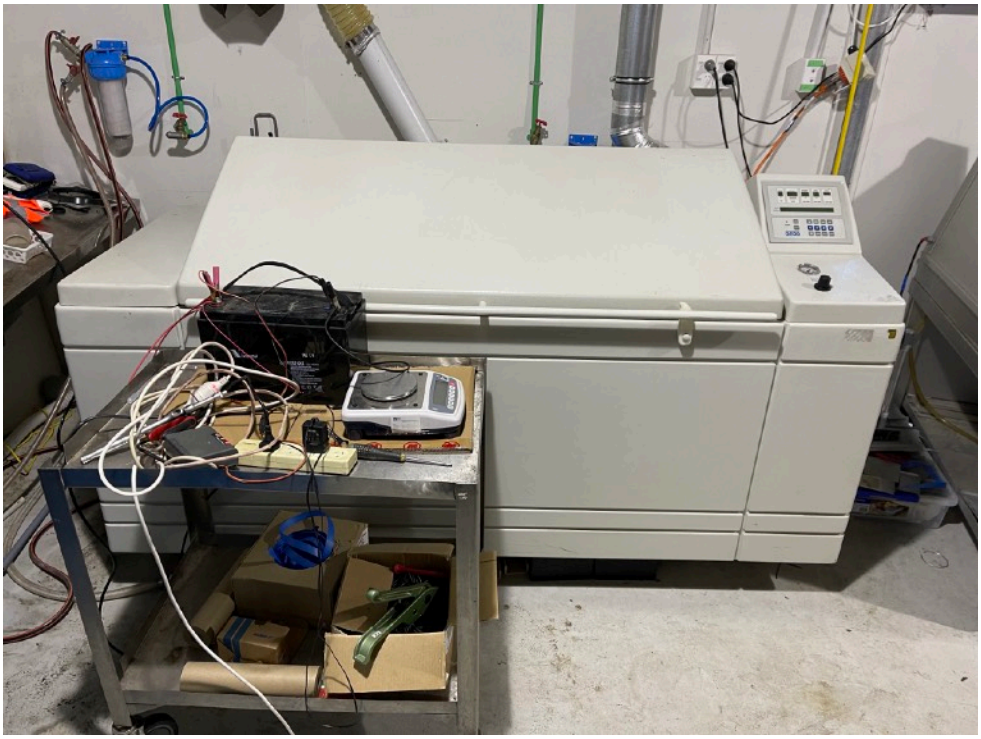
Results Glossary

Refer to the table below for an explanation of the three result classifications:

Result	Overview
Pass	Red corrosion does not exceed 2% of exposed surface.
Anom	Corrosion is evident but borderline on pass.
Fail	Red corrosion exceeding 2% of exposed surface.

Test equipment

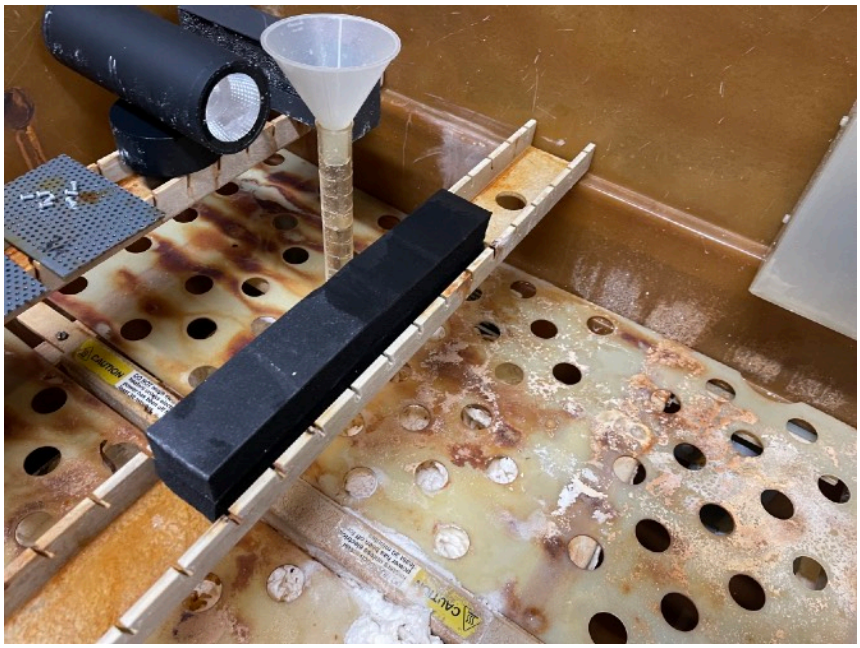
Description	Manufacturer / Model	Serial Number	Quantity	Calibration
Salt Spray Chamber	Q-Lab Q-Fog CCT1100	00-2061-32-CCT1100	1	25th Feb, 2023
pH Meter	Mettler Toledo SevenMulti	1225407114	1	Weekly
Fixture	Q-Lab	NA	2	NA
Camera	Varies	Varies	1	NA



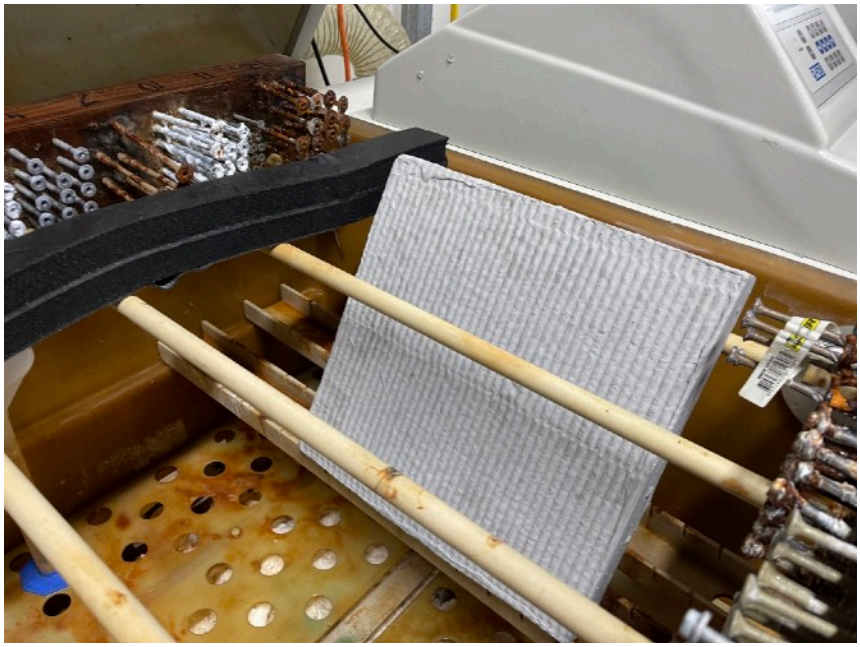
Test Equipment: Q-Lab Q-Fog CCT1100 Salt Spray Chamber

Product configuration

Refer to the pictures provided below showing unit placement for the beginning of this test.



Samples loaded into Salt Spray chamber - Ryanspan



Samples loaded into Salt Spray chamber - Ryanbatt 502

Functional test process

Not applicable - products were returned to RYANFIRE to undergo fire testing after exposure.

Inspection process

The products were visually inspected after exposure, and again after wash down.

Failure Characterisation

During the inspection process, any abnormalities are considered possible failure modes until they can be determined otherwise. To establish clear failure identification the list below details acceptable specifications and/or product colouring.

- No corrosion to occur.

Salt Spray :: Test Report

Exposure conditions

Testing was performed in accordance with ASTMB117:

Cycle Settings

Step	Duration (Hrs)	Step Type
1	24	Salt Spray
2	Repeat Step 1 for a total of 240 hours.	

General Settings - Salt Spray Section

Parameter	Description
Standard applied	ASTM B117
Solution	5 percent sodium chloride and 95 percent distilled water (by weight)
Exposure Temperature	+35°C ± 2 °C
Exposure Humidity	Uncontrolled
Spray Nozzle Pressure	10psi ± 2psi
pH Level	6.5 - 7.2pH (measured daily)

Test results

Serial	Variant	Standard	Notes	Result
1	Ryanspan	ASTMB117	No oxidation to any part, sub-part or surface.	Pass
2	Ryanbatt 502			Pass

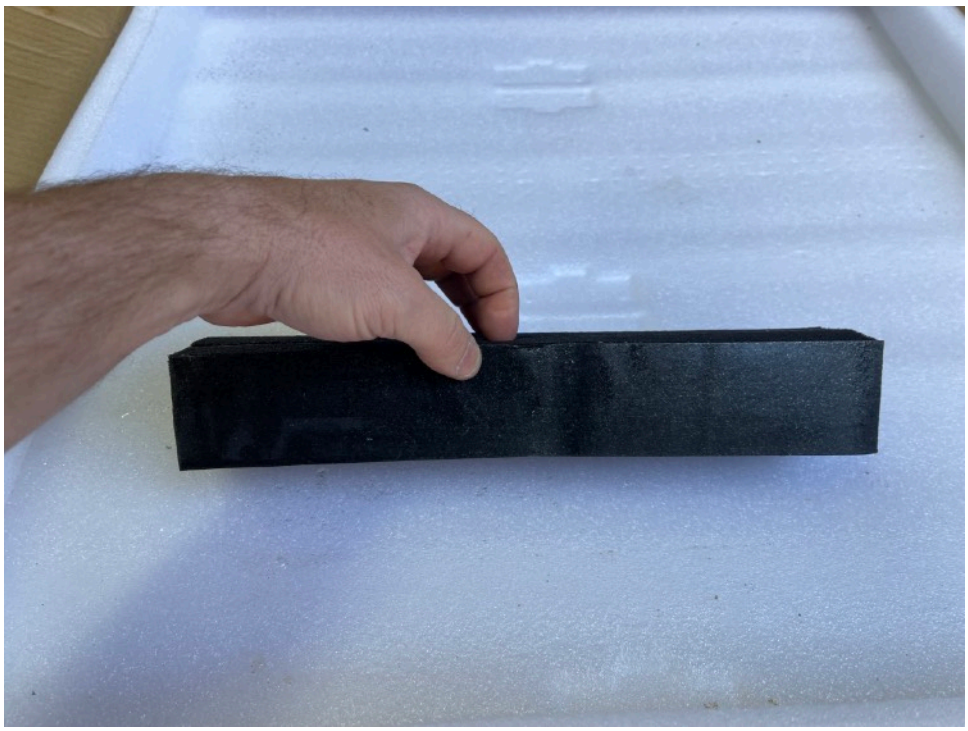
Inspection

The following photos depict various samples after exposure.

Ryanspan - no change after exposure - no corrosion

Ryanspan - no change after exposure - no corrosion

Ryanspan - no change after exposure - no corrosion



Ryanspan - no change after exposure - no corrosion

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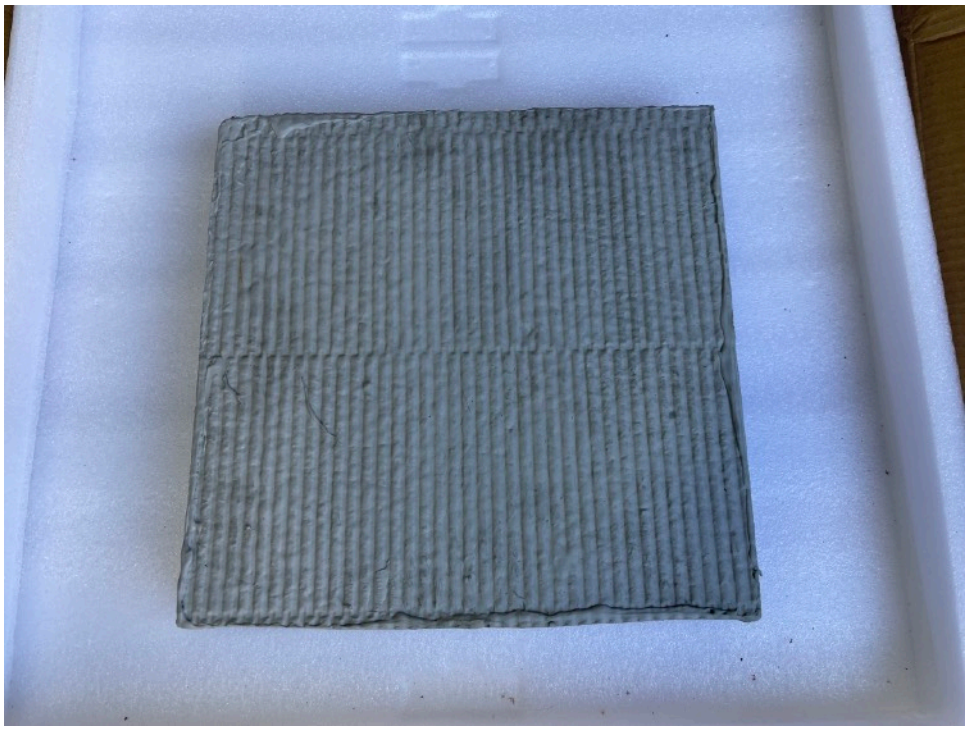
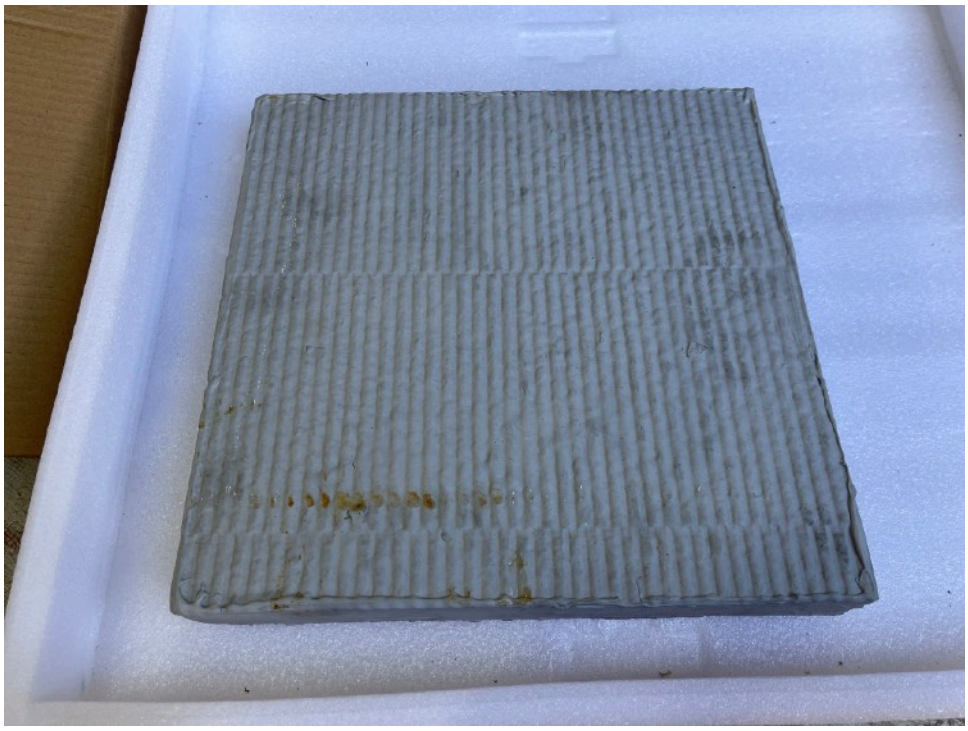
Ryanspan - no change after exposure - no corrosion



Ryanbatt 502 - no change after exposure - no corrosion

Ryanbatt 502 - no change after exposure - no corrosion



Ryanbatt 502 - no change after exposure - no corrosion - marking from resting on chamber surface

Ryanbatt 502 - no change after exposure - no corrosion

Ryanbatt 502 - no change after exposure - no corrosion

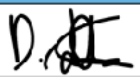
Ryanbatt 502 - no change after exposure - no corrosion

Appendix A: Document Control

Revision History

Revision Date	Author	Revision	Changes Made
11th October, 2022	Donovan Johnson	A	First Release

Approvals

Title	Name	Date	Signature
Director	Donovan Johnson	11th October, 2022	

Template Revision

Revision Date	Author	Revision	Changes Made	Signature
18th May, 2016	Donovan Johnson	A	First Release