

# ANCHOR PANEL FENCE CASE STUDY, 1984-2016



**Date:** 1984 installation date

**Customer:** Royal New Zealand Navy

**Site:** Devonport Naval Base Sports Ground

**Location:** Devonport, Auckland

**Product:** Anchor Panel Fencing - Made in New Zealand by Anchor

**Application:** Perimeter Security

**Detail:**

OVER 30 YEARS IN SERVICE AND STILL GOING STRONG

In 2016 the Navy finally had to replace their Anchor Panel Fence with a new one. While Anchor's panels had not succumbed to the weather, a naval battle or even the ravages of time, they were finally defeated by a ten tonne truck backing over them.

After giving such heroic service to the navy, we decided to have the panels tested to see just how well they had lasted. It turns out that, if the truck hadn't driven over them, they would most likely still be there in another 30 years faithfully guarding the Navy's sports ground. (NOTE: the average thickness of the zinc coating was greater than the 600g/m<sup>2</sup> required by the New Zealand and Australian standard AS/NZS 4680:2006).

METLAB LTD report number 1171/5 - 31 May 2016

SUBJECT: P12960 Galvanised coating weight of sheet metal samples

INTRODUCTION: METLAB LTD was requested to determine the coating mass of three wires removed from a fencing panel in Auckland's Ngataranga Bay in Devonport which has been in service for almost 30 years.

PROCEDURE: Testing was carried out in accordance with AS2331.2.1 "Tests for Average Coating Mass per unit Area - Dissolution methods". Each sample was cleaned and weighed before being immersed in a test solution of reagent 7 in accordance with AS2331.2.1. Following stripping, the samples were cleaned, dried and reweighed.

RESULTS: The results of the coating weight are shown in table 1. It should be noted that even after cleaning, sample 3 appears to have 'barnacle-like' deposits on the surface and therefore the results of coat weight on this sample should be treated with caution. The surface deposits give an artificially high initial weight before the dissolution test. Removing the results of galvanised coat weight from sample 3, the average coat weight on the fencing panel wires is 716g/m<sup>2</sup>.

CONCLUSIONS: The zinc coating mass on the almost-30 year-old fencing panel from Ngataranga Bay averages 716g/m<sup>2</sup>.



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## Original Installation in 1984

