



Addendum to Alphatech Report 10108 Issue 2

Prepared by Enviro Tech

Preparation:

A series 12 of cold rolled Steel panels (152 x 101 x 1 mm) were cleaned with EnSolv and one side was coated in a protective surface coating to protect it during testing. The upper face was re-cleaned and abraded with p240 followed by P400 wet and dry paper. The panels were then weighed and the mass recorded. Two panels were put to one side as uncoated controls. The panels were then coated by brush with Super Corr-A. 5 panels had a single coat applied and a further 5 had a double coat. After drying and force drying at 35C the panels were reweighed and the new mass recorded.

A second series of 12 Aluminium panels (152 x 101 x 1 mm) were prepared in the same manner

Panel #	Type	Panel Wt	Wt coated	Mass of coating	Calculated thickness microns
1	Steel uncoated	96.0259	-	-	-
2	Steel uncoated "X"	96.2263	-	-	-
3a	Steel single coat	96.2331	96.4126	0.1795	10.3
3b	Steel single coat	95.6060	95.7578	0.1518	8.7
4a	Steel double coat	95.5620	95.9376	0.3756	21.6
4b	Steel double coat	95.8301	96.132	0.3019	17.3
5a	Steel single coat "X"	95.9538	96.0928	0.139	8.0
5b	Steel single coat "X"	96.3047	96.4364	0.1347	7.6
6a	Steel double coat "X"	96.0992	96.4193	0.3201	18.4
6b	Steel double coat "X"	96.1484	96.4966	0.3482	20.0
7a	Steel single coat	96.3237	96.4679	0.1442	8.3
7b	Steel double coat	95.5168	95.8450	0.3282	18.8
8	Aluminium uncoated	29.8283	-	-	-
9	Aluminium uncoated "X"	29.8283	-	-	-
10a	Aluminium single coat	29.9978	30.1308	0.1330	7.6
10b	Aluminium single coat	30.0152	30.1554	0.1402	8.1
11a	Aluminium double coat	29.952	30.3569	0.4049	23.3
11b	Aluminium double coat	29.8817	30.2557	0.3740	21.5
12a	Aluminium single coat "X"	30.0405	30.1676	0.1271	7.3
12b	Aluminium single coat "X"	29.8133	29.9357	0.1224	7.0
13a	Aluminium double coat "X"	30.1022	30.4433	0.3411	19.6
13b	Aluminium double coat "X"	29.7668	30.1113	0.3445	19.8
14a	Aluminium single coat	29.8442	30.0294	0.1852	10.6
14b	Aluminium double coat	30.0553	30.382	0.3267	18.8

The panels were submitted to Alphatech for Salt Spray testing to ASTM B117-07. The test period was 240 hours (10 days) with inspections at:

24, 48, 72, 144, 168, 192, 216, 240 hours.

Results - See Alphatech test report 10108

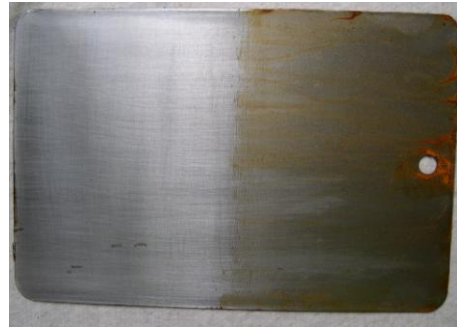
Pictures of steel panels following 240 hours exposure and bottom half of panel cleaned in EnSolv®



Panel 1 – No coating



Panel 3a – Steel single coating



Panel 4a – Steel double coating



Panel 5a – Steel single coating



Panel 6a – Steel double coating

Pictures of Aluminium panels following 240 hours exposure and bottom half of panel cleaned in EnSolv®



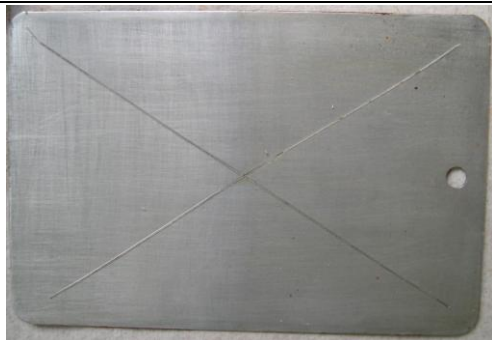
Panel 1 – No coating



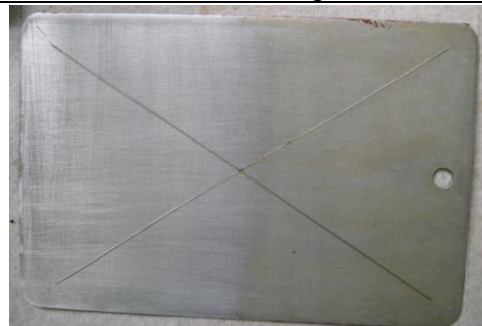
Panel 10a – Aluminium single coating



Panel 11a – Aluminium double coating



Panel 12a – Aluminium single coating



Panel 13a – Aluminium double coating



## Conclusions

A single coat brushed gave an effective film thickness of 7-10 microns and the double coat gave about 19-23 microns. The higher film build of ca 20 microns gave far better protection than the lower ca 9 micron film. This was most noticeable on the scored panels. The purpose of the scratch was to simulate damage to the substrate after coating to determine if the coating could still protect against corrosion by “self healing”. The performance of Corr-ex at 20 microns over scored steel was excellent. The performance of Corr-ex at both 10 and 20 microns over scored aluminium was excellent.

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