

	Conductivity (S/m @20°C)
Aluminium	3.50×10^7
Magnesium	2.15×10^7
Graphene Grade 1	1.00×10^8
Graphene Grade 2	2.00×10^{-5}
Conductive Carbon Black (CB)	1.00×10^4
Single Wall Carbon Nanotubes (SWCNTs)	$1.00 \times 10^6 - 1.00 \times 10^7$

Table 1

Formulation:	Control A	Control B	1	2	3	4	5	6	7	8	9	10
Epoxy (wt%)	100.000	0.000	99.9	99.97	99.997	99.5	99.97	99.997	99.9	99.9	99.9	99.9
Graphene Grade 1 (wt%)	0.000	0.000	0.1	0.03	0.003	0	0.000	0.000	0	0	0.05	0.05
Graphene Grade 2 (wt%)	0.000	0.000	0.000	0.000	0.000	0.5	0.03	0.003	0	0	0	0
Conductive Carbon Black (CB)	0	0	0	0	0	0	0	0	0.1	0	0.05	0
Single Wall Carbon Nanotubes (SWCNTs)	0	0	0	0	0	0	0	0	0	0.1	0	0.05

Table 2

Sample Data - Unscribed Samples												
Formulation:	Control B	Control A	1	2	3	4	5	6	7	8	9	10
Mean Ecorr (mV)	-908	-1090	-797	-1090	-689	-1030	-958	-1060	n/a	n/a	n/a	n/a
Mean Beta A (V/decade)	0.4663	0.9543	0.2034	0.8662	0.0243	0.5680	0.3792	0.8343	n/a	n/a	n/a	n/a
Mean Beta C (V/decade)	0.2084	0.1847	0.2254	0.5344	0.3138	0.4040	0.2085	0.3417	n/a	n/a	n/a	n/a
Mean Icorr (nA)	10900.00	621.00	261.00	10.40	139.00	8.96	10.30	13.00	n/a	n/a	n/a	n/a
Mean Corrosion Rate (mil per year)	0.3200	0.0188	0.0077	0.0003	0.0041	0.0003	0.0003	0.0004	n/a	n/a	n/a	n/a
Mean Corrosion Rate (μ per year)	8.0000	0.4695	0.1918	0.0077	0.1022	0.0066	0.0076	0.0095	n/a	n/a	n/a	n/a

Table 3a

Sample Data - Scribed Samples												
Formulation:	Control B	Control A	1	2	3	4	5	6	7	8	9	10
Mean Ecorr (mV)	-908	-797	-1010	-698	-806	-958	-964	-838	-736	-833	-826	-723
Mean Beta A (V/decade)	0.4385	0.1976	0.9174	0.0435	0.2558	0.3759	0.3720	0.2155	0.64	0.83	0.27	0.92
Mean Beta C (V/decade)	0.2027	0.2221	0.1441	0.3826	0.2115	0.2096	0.2019	0.0961	0.22	0.3	0.16	0.26
Mean Icorr (nA)	10400.00	84.64	172.01	173.00	8.52	10.20	10.20	159.00	175.08	1212.6	210.67	2377.1
Mean Corrosion Rate (mil per year)	0.306200	0.002488459	0.0050581	0.005092	0.000251	0.000301	0.000301	0.004667	0.005148	0.0356581	0.0061950	0.0699019
Mean Corrosion Rate (μ per year)	7.655000	0.06320687	0.1284781	0.127300	0.006265	0.007523	0.007515	0.116675	0.130771	0.9057180	0.157351	1.7755091

Table 3b

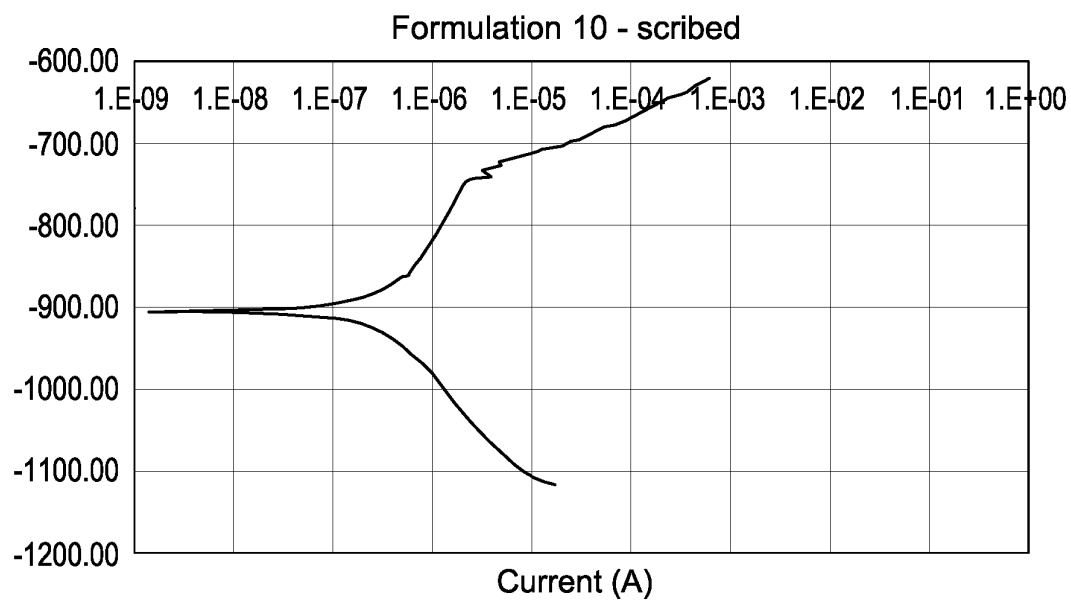
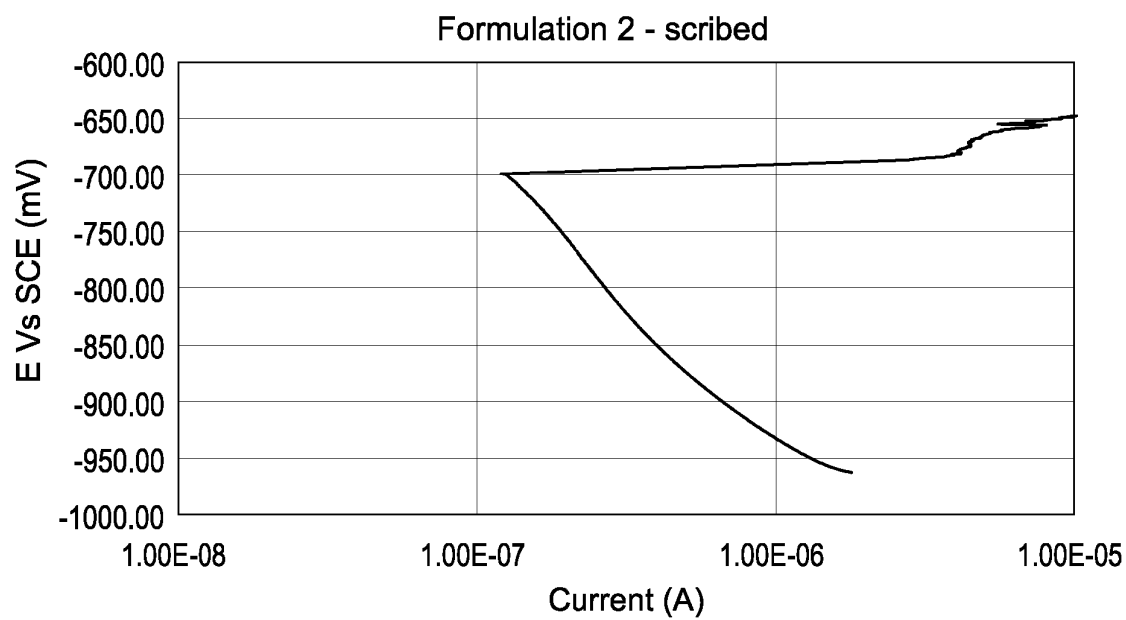


Table 4

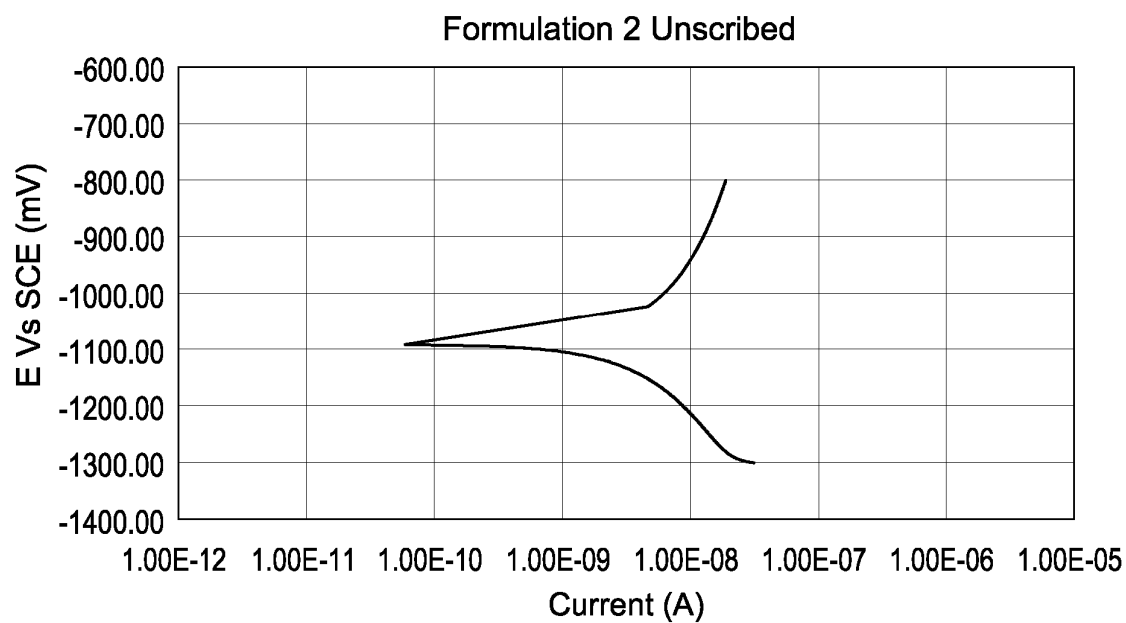


Table 5

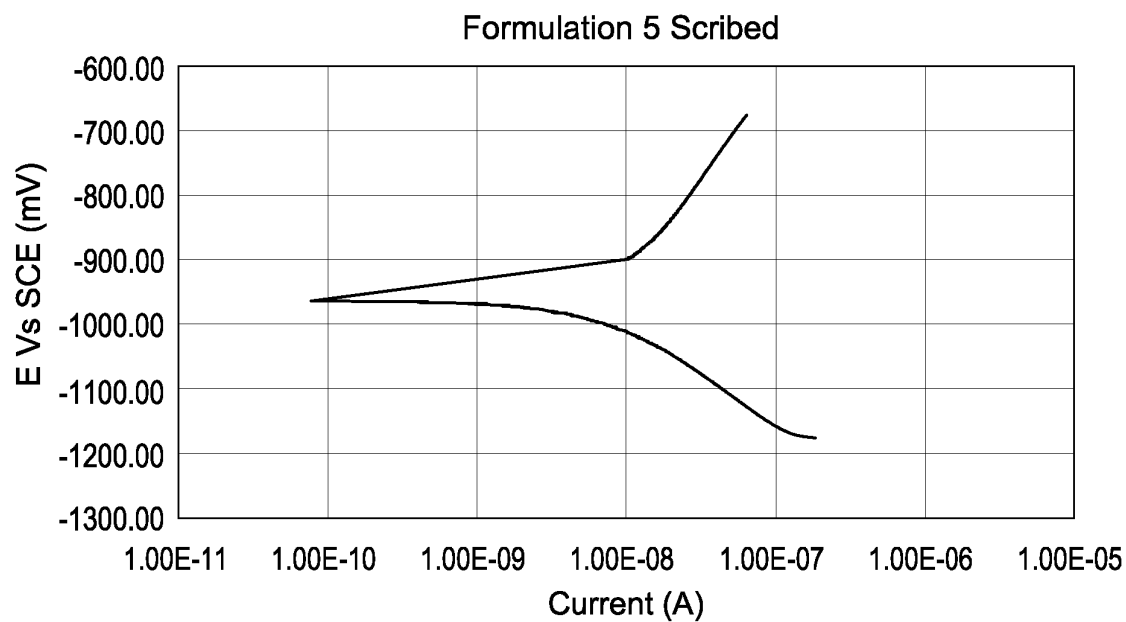


Table 6

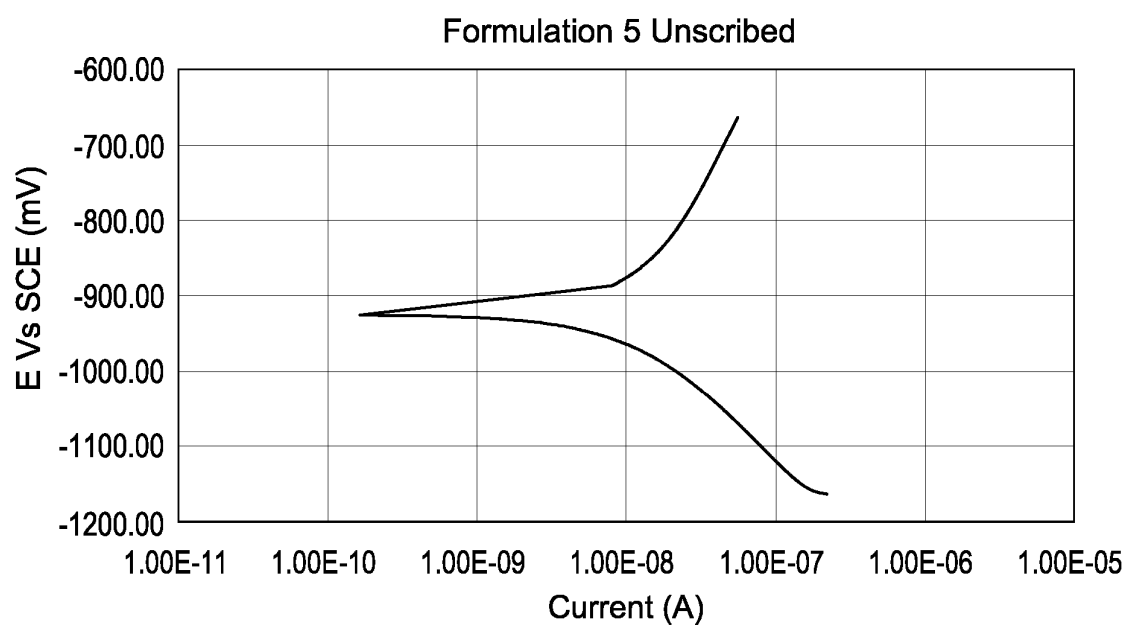


Table 7

Formulation	Control C	11	12	13	14	15
Epoxy (wt%)	100	99.9	99.75	99.5	99	95
Graphene Grade 2 (wt%)	0	0.1	0.25	0.5	1	5

Table 8

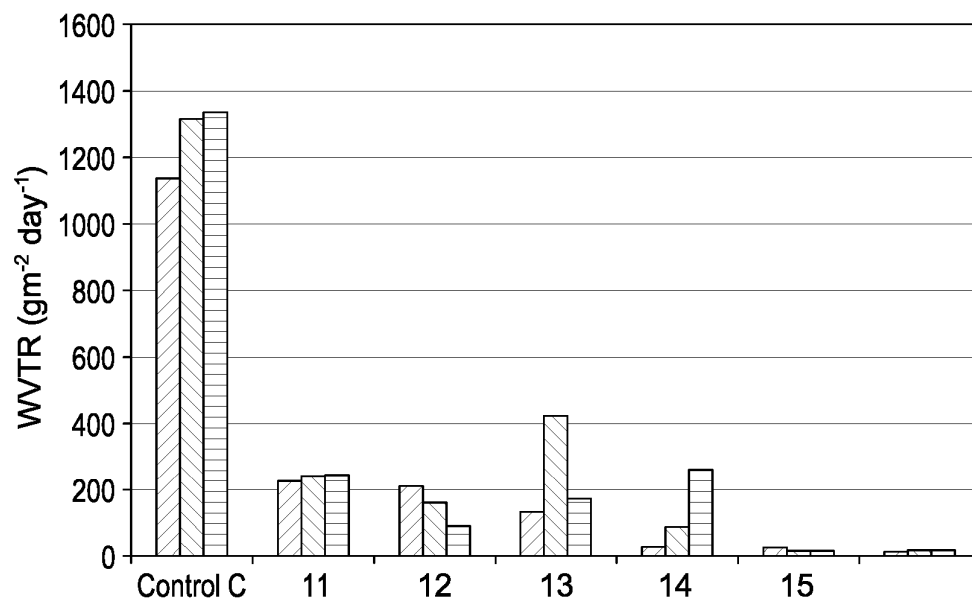


Table 9