

	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}

Table 1

Formulation:	Control A	Control B	1	2	3	4	5	6
Epoxy (wt%)	100.000	0.000	99.9	99.97	99.997	99.5	99.97	99.997
Graphene Grade 1 (wt%)	0.000	0.000	0.1	0.03	0.003	0	0.000	0.000
Graphene Grade 1 (wt%)	0.000	0.000	0.000	0.000	0.000	0.5	0.03	0.003

Table 2

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

<u>Sample Data - Scribed Samples</u>								
Formulation:	Control B	Control A	1	2	3	4	5	6
Ecorr (mV)	-908	-797	-1010	-698	-806	-958	-964	-838
Beta A (V/decade)	0.4385	0.1976	0.9174	0.0435	0.2558	0.3759	0.3720	0.2155
Beta C (V/decade)	0.2027	0.2221	0.1441	0.3826	0.2115	0.2096	0.2019	0.0961
Icorr (nA)	10400.00	255.00	687.00	173.00	8.52	10.20	10.20	159.00
Corrosion Rate (mil per year)	0.306200	0.007497	0.002020	0.005092	0.000251	0.000301	0.000301	0.004667
Corrosion Rate (μ per year)	7.655000	0.187425	0.050500	0.127300	0.006265	0.007523	0.007515	0.116675

Table 3

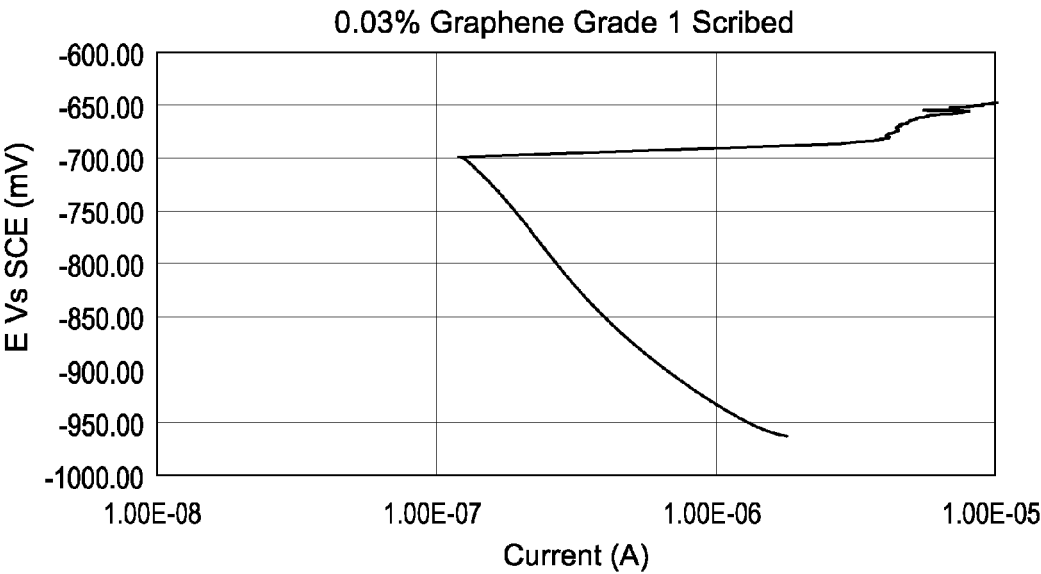


Table 4

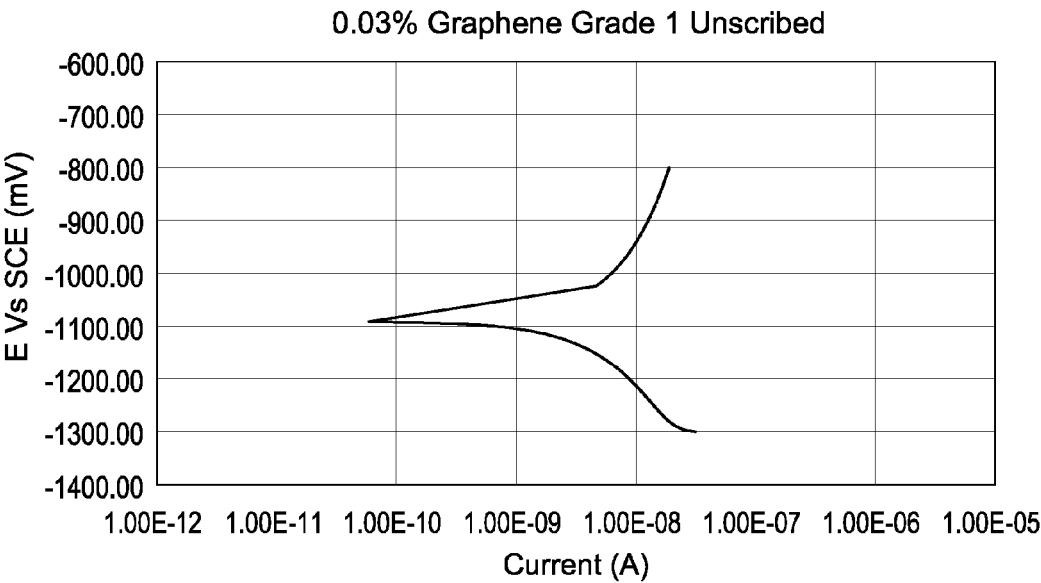


Table 5

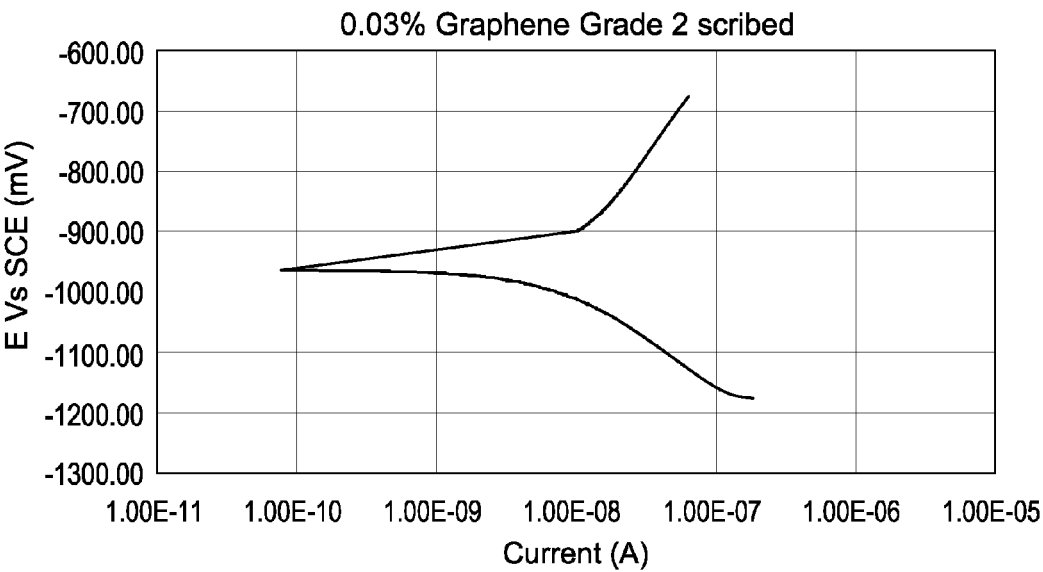


Table 6

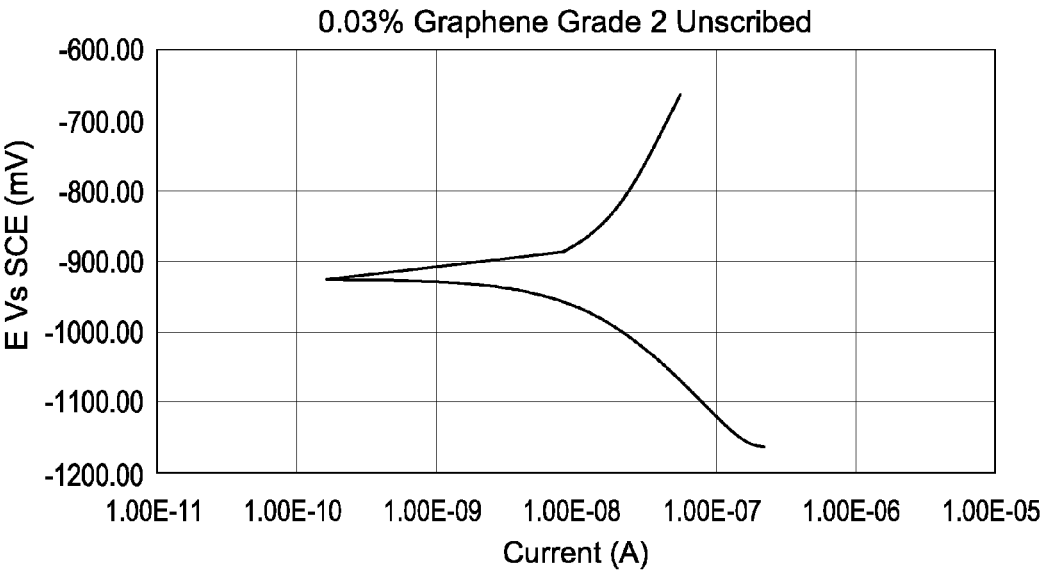


Table 7

Formulation	Control C	7	8	9	10	11
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

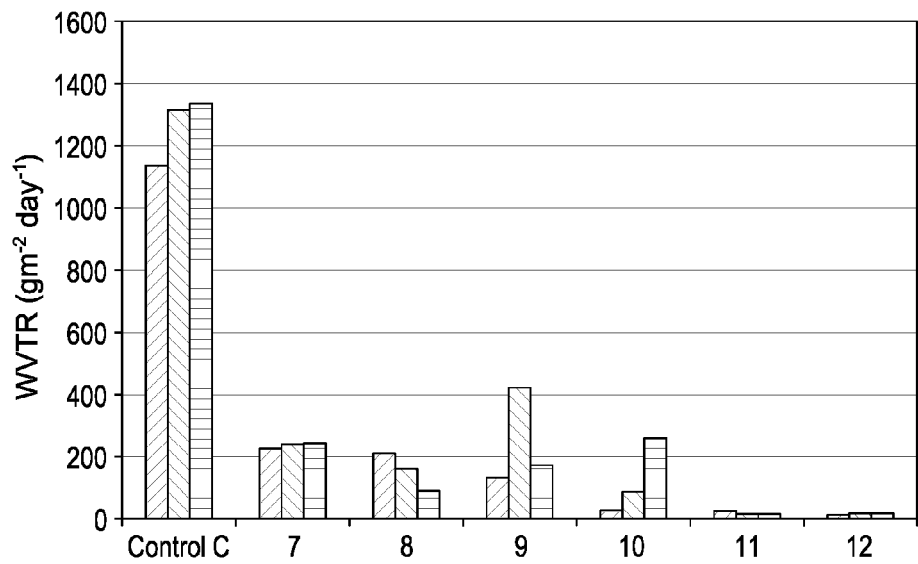


Table 9