Life Test Data — Paper (2x.66mil) Capacitors

Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-18-75

Temp, °C / Voltage / Time, hrs.	RT 600 0	90° 1000 168	90° 1000 672	90° 1000 912	90° 1000 1344	90° 1000 1680	90° 1000 2016	90° 1000 2184
1X Column treated MCS 1588 (P.P. R-3)	.00332	.00369	.00369	.00373	.00385	.00400	.00397	.00398
	1.978 (μfd)	1.879	1.878	1.879	1.880	1.880	1.880	1.881
±0.01% Dowel ±0.3% Unox221				(7,296 Actual unit hrs.)				
1X Column treated MCS 1588 (P.P. R-3)	.00365	.00331	.00331	.00333	.00329	.00325	.00327	.00329
	1.975 (μfd)	1.878	1.875	1.876	1.877	1.877	1.877	1.877
±0.01% Dowel ±0.3% Unox221				(7,296 Actual unit hrs)				
Aroclor 1016 (Lot LE03-717)	.00337	.00327	.00314	.00313	.00313	.00316	.00312	.00311
	1.944 (μfd)	1.839	1.836	1.837	1.838	1.838	1.838	1.838
±0.3% Unox221				(7,296 Actual unit hrs)				
Aroclor 1016 (Lot LE03-717)	.00338	.00325	.00308	.00306	.00304	.00302	.00301	.00301
	1.942 (μfd)	1.839	1.835	1.835	1.835	1.835	1.835	1.835
±0.3% Unox221				(7,296 Actual unit hrs)				
1X Column Treated MCS 1238 (P.P. drum #2)	.00380	.00360	.00342	.00343	.00337	.00336	.00334	.00333
	1.956 (μfd)	1.852	1.850	1.852	1.851	1.850	1.851	1.851
±0.3% Unox221				(7,296 Actual unit hrs)				
1X Column treated MCS 1238 (P.P. drum #2)	.00372	.00356	.00345	.00342	.00338	.00338	.00338	.00336
	1.965 (μfd)	1.858	1.859	1.859	1.860	1.860	1.860	1.860
±0.3% Unox221				(7,296 Actual unit hrs)				
				(7,296 [illegible])				

DSW 435383

STLCOPCB4088444

Life Test Data – Paper (2X.66mil) Capacitors

Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-18-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	2016	2184
MCS 1588								
PP, R-3)								
0.01% Irnol								
0.3% Unox221								
Lot 2 3-13-75)								
Imp. 7-1-75)								
Capacitor 1								
#1	.00380	.00324	.00315	.00314	.00311	.00312	.00312	.00312
(ufd)	1.966	1.875	1.875	1.876	1.879	1.880	1.880	1.881
#2	.00379	.00546	.00591	.00609	.00634	.00706	.00683	.00686
(ufd)	1.990	1.850	1.856	1.858	1.858	1.856	1.859	1.859
#3	.00364	.00343	.00325	.00328	.00331	.00333	.00335	.00335
(ufd)	1.993	1.895	1.892	1.892	1.892	1.891	1.891	1.891
#4	.00373	.00349	.00341	.00351	.00359	.00371	.00358	.00355
(ufd)	1.979	1.884	1.881	1.882	1.882	1.881	1.882	1.882
#5	.00376	.00349	.00336	.00329	.00337	.00334	.00341	.00340
(ufd)	1.989	1.894	1.889	1.889	1.890	1.888	1.888	1.888
#6	.00377	.00351	.00382	.00405	.00450	.00473	.00484	.00486
(ufd)	1.975	1.885	1.889	1.890	1.891	1.891	1.892	1.893
#7	.00367	.00345	.00334	.00327	.00333	.00337	.00336	.00338
(ufd)	1.962	1.874	1.870	1.870	1.871	1.871	1.870	1.870
#8	.00364	.00348	.00328	.00324	.00327	.00332	.00329	.00335
(ufd)	1.970	1.875	1.876	1.878	1.879	1.880	1.881	1.881
Avg.	.00372	.00369	.00369	.00373	.00385	.00400	.00397	.00398
(ufd)	1.978	1.879	1.878	1.879	1.880	1.880	1.880	1.881

DSW 435384

STLCOPCB4088445

Life Test Data — paper (2 x .66 mil) Capacitors

Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-18-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	2016	2184

x Column treated
ICS1588
(P.P. R-3)
0.01% Ionol
0.3% Unox 221
(Fr#2, 3-13-75)
(Imp. 7-2-75)

Capacitors

#1	.00366	.00308	.00300	.00304	.00302	.00298	.00296	.00296
(cfd)	1.948	1.851	1.848	1.848	1.849	1.848	1.848	1.848
#2	.00360	.00327	.00405	.00418	.00391	.00360	.00377	.00398
(cfd)	1.960	1.871	1.874	1.875	1.878	1.880	1.880	1.879
#3	.00364	.00334	.00323	.00325	.00324	.00320	.00315	.00312
(cfd)	1.970	1.878	1.875	1.875	1.876	1.875	1.876	1.876
#4	.00370	.00327	.00315	.00313	.00315	.00313	.00313	.00314
(cfd)	1.978	1.879	1.875	1.876	1.876	1.875	1.875	1.875
#5	.00362	.00337	.00325	.00326	.00324	.00326	.00330	.00327
(cfd)	1.989	1.889	1.885	1.886	1.886	1.885	1.885	1.885
#6	.00361	.00339	.00327	.00327	.00328	.00330	.00331	.00332
(cfd)	1.993	1.892	1.888	1.888	1.889	1.887	1.887	1.888
#7	.00375	.00336	.00323	.00322	.00322	.00323	.00324	.00325
(cfd)	1.979	1.879	1.880	1.884	1.886	1.887	1.888	1.888
#8	.00361	.00338	.00329	.00327	.00328	.00330	.00330	.00331
(cfd)	1.984	1.882	1.879	1.879	1.886	1.878	1.878	1.879
Avg.	.00365	.00331	.00331	.00333	.00329	.00325	.00327	.00329
(cfd)	1.975	1.878	1.875	1.876	1.877	1.877	1.877	1.877

DSW 435385

STLCOPCB4088446

Life Test Data – Mylar (2x16CMil) Capacitors
Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 2-18-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	2016	2184
Arco Cor 1616								
(Lot KE03-717)								
+0.3% Mylar 221								
(Proc, 3-13-75)								
(Emp 7-[illegible]-75)								
Capacitor								
#1	.00330	.00305	.00297	.00296	.00299	.00300	.00301	.00300
(μfd)	1.962	1.858	1.854	1.854	1.854	1.853	1.853	1.853
#2	.00326	.00315	.00304	.00301	.00300	.00301	.00302	.00302
(μfd)	1.946	1.840	1.835	1.835	1.836	1.835	1.835	1.835
#3	.00342	.00336	.00316	.00316	.00317	.00324	.00318	.00317
(μfd)	1.928	1.832	1.829	1.829	1.829	1.829	1.829	1.829
#4	.00334	.00338	.00317	.00317	.00319	.00324	.00319	.00319
(μfd)	1.936	1.837	1.834	1.834	1.834	1.834	1.834	1.834
#5	.00348	.00324	.00318	.00317	.00317	.00318	.00310	.00311
(μfd)	1.938	1.826	1.824	1.825	1.827	1.829	1.830	1.830
#6	.00344	.00329	.00320	.00319	.00313	.00321	.00314	.00315
(μfd)	1.946	1.845	1.847	1.848	1.849	1.849	1.850	1.850
#7	.00338	.00334	.00319	.00318	.00317	.00315	.00319	.00317
(μfd)	1.945	1.835	1.837	1.839	1.842	1.843	1.844	1.845
#8	.00332	.00334	.00319	.00318	.00319	.00322	.00310	.00311
(μfd)	1.945	1.836	1.831	1.831	1.831	1.830	1.830	1.830
Avg.	.00337	.00327	.00314	.00313	.00313	.00316	.00312	.00311
(μfd)	1.944	1.839	1.836	1.837	1.838	1.838	1.838	1.838

DSW 435386

STLCOPCB4088447

Life Test Data — Paper (2x.66 Mil) Capacitors

Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-18-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	3016	2184

Aroclor 1016
(Lot KE03-717)
+0.3% Chinox 221
(Fr #2, 3-13-75)
(Imp. 7-8-75)

Capacitors

#1	.00335	.00307	.00297	.00295	.00295	.00284	.00284	.00284
(μfd)	1.908	1.810	1.806	1.806	1.806	1.805	1.805	1.804
#2	.00334	.00316	.00297	.00295	.00295	.00292	.00291	.00291
(μfd)	1.960	1.856	1.852	1.852	1.852	1.851	1.851	1.851
#3	.00337	.00329	.00310	.00305	.00302	.00301	.00300	.00300
(μfd)	1.951	1.854	1.851	1.851	1.851	1.850	1.850	1.851
#4	.00331	.00322	.00305	.00303	.00301	.00301	.00300	.00301
(μfd)	1.934	1.830	1.826	1.826	1.826	1.826	1.826	1.826
#5	.00340	.00330	.00310	.00308	.00306	.00304	.00304	.00304
(μfd)	1.932	1.832	1.828	1.828	1.828	1.827	1.827	1.827
#6	.00336	.00332	.00314	.00311	.00308	.00308	.00307	.00307
(μfd)	1.956	1.853	1.849	1.849	1.849	1.848	1.848	1.848
#7	.00342	.00329	.00315	.00319	.00311	.00318	.00310	.00312
(μfd)	1.953	1.850	1.845	1.846	1.846	1.845	1.845	1.845
#8	.00853	.00335	.00317	.00315	.00312	.00309	.00309	.00312
(μfd)	1.941	1.830	1.826	1.826	1.826	1.825	1.825	1.825
Avg.	.00338	.00325	.00308	.00306	.00304	.00302	.00301	.00301
(μfd)	1.942	1.839	1.835	1.835	1.835	1.835	1.835	1.835

DSW 435387

STLCOPCB4088448

Life Test Data – Paper/(2x.66mil) capacitors
Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-8-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	2016	2184

1 X Column treated
MCS 1238
(P.P. drum #2)
+0.3% Unox 221
(Fr # 2, 3-13-75)
(Imp. 7-9-75)

Capacitors

#1	.00391	.00351	.00333	.00330	.00327	.00326	.00325	.00325
(μfd)	1.948	1.835	1.830	1.831	1.832	1.831	1.831	1.831
#2	.00378	.00360	.00341	.00335	.00329	.00319	.00320	.00329
(μfd)	1.959	1.855	1.852	1.852	1.853	1.853	1.853	1.853
#3	.00380	.00365	.00352	.00348	.00337	.00344	.00335	.00326
(μfd)	1.957	1.852	1.849	1.850	1.850	1.850	1.850	1.850
#4	.00379	.00356	.00344	.00348	.00343	.00337	.00344	.00337
(μfd)	1.959	1.856	1.860	1.861	1.863	1.863	1.864	1.864
#5	.00388	.00366	.00350	.00342	.00343	.00346	.00337	.00337
(μfd)	1.960	1.847	1.844	1.855	1.845	1.844	1.844	1.845
#6	.00366	.00360	.00340	.00347	.00343	.00337	.00333	.00341
(μfd)	1.955	1.858	1.855	1.856	1.856	1.855	1.855	1.855
#7	.00378	.00366	.00341	.00345	.00337	.00342	.00334	.00333
(μfd)	1.970	1.868	1.864	1.864	1.864	1.863	1.863	1.863
#8	.00379	.00359	.00341	.00353	.00341	.00338	.00343	.00336
(μfd)	1.945	1.848	1.845	1.846	1.846	1.845	1.845	1.846
Avg.	.00380	.00360	.00342	.00343	.00337	.00336	.00334	.00333
(μfd)	1.956	1.852	1.850	1.852	1.851	1.850	1.851	1.851

DSW 435388

STLCOPCB4088449

Life Test Data – Paper (2K166mil) Capacitors
Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 7-18-75

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°
Voltage	600	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	672	912	1344	1680	2016	2184
1K Columntreated								
MCS1238								
(P.P. Lot#2)								
+0.3% Lot#221								
(Fr#2, 3-13-75)								
(Imp. 7-10-75)								
Capacitor								
#1	.00380	.00338	.00321	.00318	.00319	.00316	.00314	.00313
(ufd)	1.966	1.860	1.858	1.859	1.859	1.858	1.858	1.858
#2	.00371	.00359	.00346	.00344	.00342	.00343	.00342	.00341
(ufd)	1.935	1.827	1.827	1.827	1.828	1.826	1.827	1.827
#3	.00370	.00348	.00336	.00335	.00332	.00332	.00332	.00331
(ufd)	1.965	1.855	1.855	1.855	1.856	1.854	1.854	1.855
#4	.00365	.00361	.00352	.00348	.00346	.00348	.00347	.00346
(ufd)	1.986	1.873	1.873	1.873	1.874	1.873	1.873	1.873
#5	.00370	.00359	.00349	.00348	.00340	.00342	.00344	.00340
(ufd)	1.991	1.883	1.887	1.889	1.891	1.892	1.893	1.893
#6	.00383	.00370	.00357	.00354	.00354	.00347	.00350	.00348
(ufd)	1.966	1.859	1.868	1.869	1.871	1.872	1.873	1.873
#7	.00365	.00354	.00345	.00340	.00336	.00337	.00338	.00337
(ufd)	1.950	1.843	1.841	1.841	1.841	1.840	1.841	1.841
#8	.00369	.00356	.00351	.00346	.00338	.00336	.00335	.00334
(ufd)	1.962	1.864	1.862	1.863	1.863	1.862	1.862	1.862
Avg.	.00372	.00356	.00345	.00342	.00338	.00338	.00338	.00336
(ufd)	1.965	1.858	1.859	1.859	1.860	1.860	1.860	1.860

DSW 435389

STLCOPCB4088450