Life Test Data — Paper (2 x 1.66 Mil) Capacitors

Test Conditions, tan δ, Capacitance, Failure Times

Page 1

Test Started 3-22-73

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°
Voltage	600	870	900	930	960	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	168	158	168	168	168	336	504	672	826	994	1162	1330	1498	1694
1 1X Treated MCS1476 (26.3% dist H230L, 48.7% dist. Santisol 100, 25% TXS (P.P. Ba#4, dist. + Na_2CO_3 Treated) +0.3% Unox 221 (Fr. #2, 1-15-73)	.00344	.00330	.00332	.00334	.00335	.00337	.00345	.00340	.00340	.00342	.00344	.00343	.00343	.00348	.00341
	1.969 μfd	1.873	1.871	1.871	1.871	1.870	1.870	1.870	1.870	1.875	1.873	1.873	1.873	1.874	1.878
2 1X Treated Recycled MCS1476 [1X recovered 26.3% dist H230L, 48.7% dist. Santisol 100, 25% TXS (P.P. Ba#4, dist. & Na_2CO_3 Treated) + new make up fluid] +0.3% Unox 221 (Fr. #2, 1-15-73)	.00348	.00337	.00341	.00343	.00322	.00351	.00357	.00355	.00359	.00367	.00369	.00368	.00370	.00368	.00366
	1.954 μfd	1.854	1.852	1.852	1.864	1.851	1.852	1.852	1.852	1.856	1.855	1.855	1.855	1.855T	1.859
															1689 hrs.
3 1X Treated 2x Recycled MCS1476 [2x recovered 26.3% dist H230L, 48.7% dist. Santisol 100, 25% TXS (P.P. Ba#4, dist. & Na_2CO_3 treated) + new make up fluid] +0.3% Unox 221 (Fr. #2, 1-15-73)	.00355	.00320	.00324	.00326	.00327	.00333	.00332	.00332	.00333	.00337	.00340	.00338	.00342	.00340	.00345
	1.965 μfd	1.860	1.858	1.858	1.858	1.858	1.857	1.857	1.857	1.862	1.860	1.860	1.860	1.861	1.863
4 1X Treated MCS1475 [90.3% 2X Treated 5711, 9.7% TXS (P.P. Ba#4, dist. & Na_2CO_3 treated)] +0.3% Unox 221 (Fr. #2, 1-15-73)	.00339	.00307	.00310	.00310	.00311	.00313	.00315	.00313	.00315	.00316	.00314	.00315	.00314	.00314	.00317
	1.954 μfd	1.837	1.836	1.835	1.835	1.834	1.834	1.834	1.834	1.838	1.836	1.836	1.836	1.836	1.838
5 1X Treated 1X Recycled MCS1475 [1X recovered 90.3% 2X Treated 5711, 9.7% TXS (P.P. Ba#4 dist. & Na_2CO_3 Treated) + new make up fluid] +0.3% Unox 221 (Fr. #2, 1-15-73)	.00346	.00329	.00328	.00332	.00339	.00339	.00344	.00342	.00345	.00340	.00346	.00346	.00346	.00338	.00340
	1.964 μfd	1.840	1.838	1.837	1.837	1.836	1.835	1.835	1.836	1.840	1.839	1.839	1.839	1.841	1.845
			1170 hrs.											1413 hrs.	

DSW 283890

STLCOPCB4065309

Life Test Data – Paper (2x .66 Mil) Capacitors
Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 3-22-73

Temp, °C Voltage Time, hrs	90° 1000 1838	90° 1000 2006	90° 1000 2174	90° 1000 2342	90° 1000 2510	90° 1000 2678	90° 1000 2846
1X Treated MCS1476 (26.3% dist HZ30L, 48.7% dist SanTisol 100, 25% TXS (P.P. Ba #4, dist. d Na_2CO_3 Treated) +0.3% Unox 221 (Fr #2, 1-15-73)	.00348 1.875 μfd.	.00350 1.874	.00347 1.874	.00348 1.874	.00347 1.874	.00349 1.874	.00350 1.874
1X Treated Recycled MCS1476 [1X recovered 26.3% dist HZ30L, 48.7% dist. SanTisol 100, 25% TXS (P.P. Ba #4, dist d Na_2CO_3 Treated) + new make up fluid] +0.3% Unox 221 (Fr #2, 1-15-73)	.00359 1.855 μfd.	.00374 1.855	.00383 1.855	.00395 1.854	.00405 1.854	.00385 1.855	.00380 1.855
1X Treated 2x Recycled MCS1476 [2x recovered 26.3% dist HZ30L, 48.7 dist. Santisol 100, 25% TXS (P.P. Ba #4, dist d Na_2CO_3 treated) + new make up fluid] +0.3% Unox 221 (Fr #2, 1-15-73)	.00346 1.862 μfd.	.00346 1.861	.00347 1.861	.00346 1.861	.00348 1.861	.00349 1.861	.00350 1.861
1X Treated MCS1475 [90.3% 2x treated 5711, 9.7% TXS (P.P. Ba #4, dist. d Na_2CO_3 Treated)] +0.3% Unox 221 (Fr #2, 1-15-73)	.00317 1.837 μfd.	.00311 1.836 1876 hrs.	.00310 1.836	.00310 1.836	.00312 1.836	.00311 1.836	.00312 1.836
1X Treated 1x Recycled MCS1475 [1X recovered 90.3% 2x treated 5711, 9.7% TXS (P.P. Ba #4, dist. d Na_2CO_3 Treated) + new make up fluid]. +0.3% Unox 221 (Fr #2, 1-15-73)	.00324 1.843 μfd. 1705 hrs.	.00332 1.843	.00328 1.848 2008 hrs.	.00327 1.848	.00327 1.848	.00327 1.849	.00328 1.848

DSW 283891

STLCOPCB4065310

Life Test Data — Paper (2x1.66mil) Capacitors — Page 2

Test Conditions, Tan δ, Capacitance, Failure Times — Test Started 3-22-73

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°
Voltage	600	870	900	930	960	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	1698	158	168	168	168	336	504	672	826	994	1162	1330	1498	1684
6 1X Treated 2x Recycled MCS 1475 [2X recovered 90.3% 2X Treated $711, 9.7% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) + new make up fluid] +0.3% Unox 221 (Fr#3, 1-15-73)	.00342	.00336	.00337	.00340	.00342	.00345	.00351	.00349	.00349	.00363	.00336	.00335	.00322	.00321	.00321
	1.972 mfd	1.849	1.847	1.846	1.846	1.845	1.845	1.846	1.846	1.849	1.843	1.843	1.849	1.850	1.855
											856.5 hrs.		1196 hrs. 1314		
7 1X Column Treated Aroclor 1016 +0.3% Unox 221 (Fr#2, 1-15-73)	.00336	.00303	.00307	.00306	.00314	.00315	.00321	.00319	.00320	.00321	.00321	.00321	.00322	.00320	.00322
	1.948 mfd	1.840	1.839	1.838	1.838	1.837	1.839	1.838	1.838	1.841	1.840	1.840	1.840	1.841	1.844
8 1X Treated 26.3% H230L (desulferized & dist.) 48.7% dist. Santisol 100, 25% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) + 0.3% Unox 221 (Fr#2, 1-15-73)	.00350	.00327	.00330	.00331	.00334	.00333	.00336	.00337	.00338	.00340	.00341	.00341	.00342	.00343	.00349
	1.953 mfd	1.853	1.852	1.852	1.852	1.852	1.851	1.851	1.851	1.855	1.854	1.854	1.854	1.855	1.856
9 1X Treated 26.3% dist. H230L (New spl From Chx Bayou), 48.7% dist. Santisol 100, 25% TXS (P.P. Ba #4, dist'd Na_2CO_3 Treated) +0.3% Unox 221 (Fr#2, 1-15-73)	.00350	.00326	.00332	.00334	.00344	.00345	.00347	.00346	.00347	.00350	.00350	.00352	.00372	.00335	.00336
	1.972 mfd	1.873	1.871	1.870	1.870	1.870	1.870	1.870	1.870	1.873	1.873	1.873	1.873	1.878	1.878
														1440 hrs.	
11 1X Treated 76.8% dist. Santisol 100, 23.2% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) +0.3% Unox 221 (Fr#3, 1-15-73)	.00361	.00361	.00371	.00383	.00353	.00349	.00355	.00352	.00356	.00370	.00404	.00402	.00407	.00407	.00407
	1.977 mfd.	1.880	1.878	1.878	1.875	1.875	1.874	1.874	1.874	1.877	1.876	1.876	1.876	1.878	1.878
					9.0 hrs.										

DSW 283892

STLCOPCB406311

Life Test Data — Paper (2x1.65MIL) Capacitors
Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 3-22-73

Temp, °C	90°	90°	90°	90°	90°	90°	90°
Voltage	1000	1000	1000	1000	1000	1000	1000
Time, hrs	1838	2006	2174	2312	2510	2672	2846
1X Treated 2X Recycled MCS1475 [2X recovered 90.3% 2X treated S711, 9.7% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) + new make up fluid] +0.3% Unox 221 (Fr. # 2, 1-15-73)	.00322	.00323	.00323	.00315	.00312	.00311	.00311
	1.851 mfd.	1.850	1.850	1.849	1.850	1.850	1.850
				2395 hrs.			2987
1X Column Treated Aroclor 1016 +0.3% Unox 221 (Fr. # 2, 1-15-73)	.00324	.00325	.00326	.00325	.00326	.00328	.00328
	1.842 mfd	1.842	1.841	1.842	1.842	1.842	1.842
1X Treated 26.3% H230L (desulferized & dist.) 48.7% dist. Santisol 100, 25% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) +0.3% Unox 221 (Fr. #2, 1-15-73)	.00347	.00352	.00353	.00355	.00358	.00359	.00361
	1.855 mfd.	1.854	1.854	1.854	1.854	1.854	1.854
1X Treated 26.3% dist. H230L (New spl. from Choc. Bayou), 48.7% dist. Santisol 100, 25% TXS (P.P. Ba #4, dist & Na_2CO_3 Treated) +0.3% Unox 221 (Fr. #3, 1-15-73)	.00337	.00340	.00339	.00339	.00339	.00339	.00340
	1.878 mfd	1.878	1.878	1.878	1.878	1.878	1.878
1X Treated 76.8% dist. Santisol 100, 23.2% TXS (P.P. Ba #4, dist. & Na_2CO_3 Treated) +0.3% Unox 221 (Fr #3, 1-15-73)	.00396	.00395	.00390	.00387	.00388	.00385	.00382
	1.878 mfd	1.878	1.879	1.879	1.879	1.879	1.879

DSW 283893

STLCOPCB4065312

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

Test Conditions, Tan δ, Capacitance, Failure Times

Test Started 3-22-73

Temp, °C	RT	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°
Voltage	600	870	900	930	960	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Time, hrs	0	1698	158	168	168	168	336	504	672	826	994	1162	1330	1498	1666
1 1X Treated 5711	.00316	.00278	.00279	.00280	.00282	.00284	.00267	.00284	.00284	.00284	.00284	.00284	.00284	.00285	.00284
+0.3% Unox 221 (Fr #2, 1-15-73)	1.785 μfd.	1.674	1.673	1.672	1.673	1.672	1.672	1.672	1.672	1.674	1.673	1.673	1.673	1.674	1.674
			147.5 hrs.												
2 1X Treated 44% (25% TXS (P.P. Ba #1) + 75% MCS 1342)	.00357	.00315	.00312	.00312	.00316	.00312	.00314	.00313	.00313	.00314	.00314	.00313	.00313	.00313	.00364
+56% dist. H230L	1.967 μfd.	1.852	1.851	1.851	1.852	1.851	1.851	1.851	1.851	1.853	1.852	1.853	1.853	1.853	1.856
+0.3% Unox 221 (Fr #2, 1-15-73)			147.5 hrs.												
3 1X Treated MCS 1476 (26.3% Undistilled H230L, 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4)	.00355	.00332	.00335	.00338	.00346	.00347	.00351	.00354	.00359	.00365	.00366	.00369	.00372	.00375	.00379
+0.3% Unox 221 (Fr #2, 1-15-73)	1.964 μfd.	1.861	1.863	1.862	1.862	1.862	1.861	1.861	1.861	1.864	1.864	1.864	1.864	1.864	1.865
			147.5 hrs.												
4 1X Treated 1X Recycled MCS 1476 (1X recovered 26.3% Undistilled H230L, 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4) + new make up fluid)	.00358	.00329	.00331	.00332	.00336	.00342	.00340	.00342	.00346	.00351	.00352	.00356	.00359	.00363	.00369
	1.956 μfd.	1.857	1.855	1.854	1.854	1.854	1.853	1.853	1.853	1.856	1.855	1.855	1.855	1.855	1.856
+0.3% Unox 221 (Fr #2, 1-15-73)															
5 1X Treated 2X Recycled MCS 1476 (2X Recovered 26.3% Undistilled H230L, 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4) + New Make up Fluid)	.00368	.00333	.00284						.00282	.00298	.00296	.00306	.00300	.00298	.00298	.00297	.00299	.00299
	1.975 μfd.	1.876	1.880						1.877	1.876	1.876	1.877	1.879	1.879	1.879	1.879	1.879	1.880
+0.3% Unox 221 (Fr #2, 1-15-73)			147.0 hrs.	89.5 hrs														
			147.0	89.5														
			147.0															
			147.0															
			~~149.0~~															

DSW 283894

STLCOPCB4065313

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

Test Started 3-22-73

Temp, °C	90°	90°	90°	90°	90°	90°	90°
Voltage	1000	1000	1000	1000	1000	1000	1000
Time, hrs	1838	2006	2174	2342	2510	2678	2846
11 1X Treated 5711 + 0.3% Unox 221 (Fr #2, 1-15-73)	.00286	.00286	.00286	.00286	.00286	.00286	.00285
	1.674 mfd	1.674	1.674	1.674	1.674	1.674	1.674
12 1X Treated 44% (25% TXS (P.P. Ba #4) + 75% MCS 1342) + 56% dist. H230L + 0.3% Unox 221 (Fr #3, 1-15-73)	.00316	.00316	.00316	.00316	.00317	.00317	.00318
	1.853 mfd	1.853	1.853	1.853	1.853	1.853	1.853
13 1X Treated MCS 1476 (26.3% Undistilled H230L, + 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4) + 0.3% Unox 221 (Fr #2, 1-15-73)	.00384	.00386	.00388	.00390	.00392	.00394	.00395
	1.864 mfd	1.864	1.864	1.864	1.864	1.864	1.864
14 1X Treated 1X Recycled MCS 1476 (1X recovered 26.3% Undistilled H230L, 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4) + new make up fluid) + 0.3% Unox 221 (Fr #3, 1-15-73)	.00375	.00378	.00382	.00386	.00389	.00393	.00396
	1.855 mfd	1.855	1.855	1.855	1.855	1.855	1.855
15 1X Treated 2X Recycled MCS 1476 (2X Recovered 26.3% Undistilled H230L, 48.7% Undistilled Santisol 100, 25% TXS (P.P. Ba #4) + new make up fluid) + 0.3% Unox 221 (Fr #2 1-15-73)	.00301	.00303	.00303	.00304	.00304	.00306	.00307
	1.879 mfd	1.879	1.879	1.879	1.879	1.879	1.879

DSW 283895

STLCOPCB4065314