BAB V

KESIMPULAN DAN SARAN

A. KESIMPULAN

1. Dari penelitian ini diketahui bahwa penurunan konsentrasi CMC-Na dan peningkatan konsentrasi PVP-K29 dapat meempengaruhi sifat fisik dari patch. Nilai pengembangan terbesar terdapat pada formula 70:30 sebesar 326,268% pada menit ke 180. Presentasi pengembangan yang besar berpengaruh pada pola pelepasan dari zat aktif, dalam penelitian ini formula 70:30 pada menit ke 480 mempunyai nilai persen disolusi sebesar 90,625%.
2. Dari hasil nilai koefisien korelasi (r) diketahui formula 70:30 dan 80:20 mengikuti kinetika pelepasan orde nol dengan cara difusi dan formula 90:10 dan 100:0 mengikuti kinetika pelepasan orde nol dengan cara difusi erosi dengan dominan pada difusi.

B. SARAN

1. Perlu dilakukan optimasi terhadap variasi konsentrasi CMC-Na dan PVP-K29 pada sediaan patch ini.
2. Perlu dilakukan uji in vivo untuk melihat bioavailabilitas dari sediaan
3. Perlu dilakukan optimasi dan pemilihan fase gerak yang lebih baik untuk melihat peak area yang lebih baik, serta dilakukan pembersihan KCKT sampai tidak terdapat lagi pengotor yang dapat mempengaruhi peak area.

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Lampiran 1

Keseragaman Bobot

NO	KONTROL	FORMULA 10:0	FORMULA 9:1	FORMULA 8:2	FORMULA 7:3
1	99,1	97,1	104,3	101,4	97,3
2	98	96,6	102	100,1	101,4
3	101	98,2	106	102,8	106,6
4	102,3	104,6	103,7	103,5	99,2
5	100,2	105,4	104,5	98,9	105,5
6	100,9	104,6	97,8	106,7	95,3
7	104,4	103,4	98,1	102,1	95,1
8	100	104,1	99,9	102,8	96,4
9	97,3	104,9	97,2	99,9	103
10	96,1	95,2	103,4	108,6	100,4
11	97,3	95,1	98	93,3	98
12	95	94,6	107,1	98,8	108
13	93,5	95,2	98,9	97,2	99
14	94,1	105,2	109	106,2	113
15	93,7	90,3	104,4	98,1	99,8
16	93,3	106,1	109,4	95,3	100,3
17	90,3	90,3	96,3	98,2	103
18	95,1	106	109,2	106,8	105,7
19	96,7	95,3	96,3	99,6	99,6
20	99,2	98,5	96	106,2	104,5
SD	3,550	5,404	4,630	4,140	4,609
X	97,375	95,053	102,075	101,325	101,555
CV (%)	3,646	5,342	4,536	4,086	4,538

Lampiran 2

Surface Ph

	KONTROL	FORMULA 10 : 0	FORMULA 9:1	FORMULA 8:2	FORMULA 7:3
REPLIKASI I	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7
REPLIKASI II	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7
REPLIKASI III	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7

Lampiran 3

Folding Endurance

	FORMULA 7:3	FORMULA 8:2	FORMULA 9:1	FORMULA 10:0	KONTROL
REPLIKASI I	>300	>300	>300	>300	>300
REPLIKASI II	>300	>300	>300	>300	>300
REPLIKASI III	>300	>300	>300	>300	>300

Lamoiran 4

Swelling Indeks

REPLIKASI	KONTROL	FORMULA 10 : 0	FORMULA 9:1	FORMULA 8:2	FORMULA 7:3
60 menit	0,15	0,13	0,17	0,2	0,29
	0,18	0,16	0,16	0,21	0,32
	0,16	0,15	0,15	0,2	0,3
120 menit	0,25	0,24	0,26	0,31	0,34
	0,24	0,15	0,28	0,26	0,39
	0,22	0,14	0,3	0,28	0,35
180 menit	0,27	0,26	0,28	0,35	0,39
	0,23	0,2	0,29	0,27	0,42
	0,25	0,19	0,32	0,29	0,4

Perhitungan Swelling Indeks dengan rumus = % Swelling = (Xt - X0/X0) x 100

Lampiran 5

Berat patch u ntuk uji swelling indeks

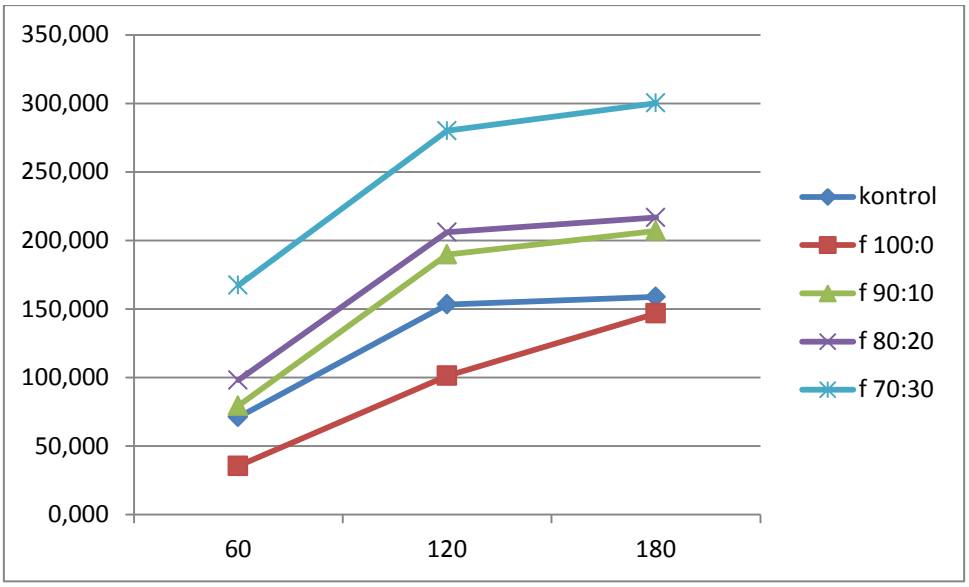
berat patch	replikasi 1
kontrol	0,093
	0,098
	0,095
formula 10:0	0,095
	0,0953
	0,0982
formula 9:1	0,0963
	0,0963
	0,0972
formula 8:2	0,09
	0,0951
	0,0933
formula 7:3	0,09
	0,0998
	0,0942

Hasil Uji Swelling Indeks

kontrol	replikasi 1	61,290	163,158	180,374
	replikasi 2	83,673	151,836	138,837
	replikasi 3	68,421	124,033	157,202
formula 100:0	replikasi 1	36,842	152,632	173,684
	replikasi 2	67,891	57,398	109,864
	replikasi 3	52,749	42,566	93,483
formula 90:10	replikasi 1	76,532	169,990	190,758
	replikasi 2	66,147	190,758	201,142
	replikasi 3	54,321	208,642	229,218
formula 80:20	replikasi 1	122,222	244,444	288,889
	replikasi 2	120,820	173,396	183,912
	replikasi 3	114,362	200,107	210,825
formula 70:30	replikasi 1	222,222	277,778	333,333
	replikasi 2	220,641	290,782	320,842
	replikasi 3	218,471	271,550	324,628

Lampiran 6

Kurva Swelling Indeks



Lampiran 7

One-Sample Kolmogorov-Smirnov Test

		hasil swelling
N		12
Normal Parameters[a,b]	Mean	176,2778
	Std. Deviation	89,89936
Most Extreme Differences	Absolute	,143
	Positive	,141
	Negative	-,143
Kolmogorov-Smirnov Z		,496
Asymp. Sig. (2-tailed)		,967

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

hasil swelling

Levene Statistic	df1	df2	Sig.
1,057	3	8	,419

ANOVA

hasil swelling

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55124,407	3	18374,802	4,352	,043
Within Groups	33776,438	8	4222,055		
Total	88900,845	11			

Lampiran 8

Multiple Comparisons

hasil swelling

Scheffe

(I) formula patch	(J) formula patch	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
patch7	patch8	87,67900	53,05378	,478	-97,6188	272,9768
	patch9	121,41533	53,05378	,235	-63,8825	306,7131
	patch10	188,12667*	53,05378	,047	2,8289	373,4245
patch8	patch7	-87,67900	53,05378	,478	-272,9768	97,6188
	patch9	33,73633	53,05378	,937	-151,5615	219,0341
	patch10	100,44767	53,05378	,372	-84,8501	285,7455
patch9	patch7	-121,41533	53,05378	,235	-306,7131	63,8825
	patch8	-33,73633	53,05378	,937	-219,0341	151,5615
	patch10	66,71133	53,05378	,676	-118,5865	252,0091
patch10	patch7	-188,12667*	53,05378	,047	-373,4245	-2,8289
	patch8	-100,44767	53,05378	,372	-285,7455	84,8501
	patch9	-66,71133	53,05378	,676	-252,0091	118,5865

*. The mean difference is significant at the 0.05 level.

Lampiran 9

Data Kurva Baku

Konsentrasi	Peak area
100 ppm	507219
50 ppm	266321
20 ppm	128506
15 ppm	100975
10 ppm	67548
5 ppm	34927
1 ppm	6985

a = 16742,05

b = 4951,67

r = 0,9985

Lampiran 10

Keseragaman kadar

	FORMULA 8:2	FORMULA 10 : 0	FORMULA 9:1	KONTROL	FORMULA 7:3
REPLIKASI I	30,1729	26,4007	29,6084	13,2114	31,4391
REPLIKASI II	29,8222	28,3629	28,4894	16,1857	30,3062
SD	0,2479	1,3875	0,7913	2,1031	0,8011
X	29,9976	27,3818	29,0489	14,69856382	30,87265256
CV	0,83%	5,07%	2,72%	13,28%	2,50%

Lampiran 11

Data Hasil Dissolusi

FORMULA 90:10

waktu	berat zat aktif	peak area	FP	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar + faktor koreksi	kadar terdisolusi
5	32,896	28767	2	2,428	1,214	2,428	0	2,428	7,382
10	32,896	53391	2	7,401	3,701	7,401	0,02	7,426	22,573
15	32,896	73391	2	11,440	5,720	11,440	0,07	11,514	35,002
30	32,896	78073	2	12,386	6,193	12,386	0,11	12,500	38,000
60	32,896	89965	2	14,788	7,394	14,788	0,12	14,911	45,329
120	32,896	95130	2	15,831	7,915	15,831	0,15	15,978	48,573
180	32,896	96924	2	16,193	8,096	16,193	0,16	16,351	49,706
240	32,896	102753	2	17,370	8,685	17,370	0,16	17,532	53,295
300	32,896	116911	2	20,229	10,115	20,229	0,17	20,403	62,023
360	32,896	127232	2	22,314	11,157	22,314	0,20	22,516	68,446
420	32,896	127890	2	22,447	11,223	22,447	0,22	22,670	68,913
480	32,896	129924	2	22,857	11,429	22,857	0,22	23,082	70,166

Lampiran 12

FORMULA 90:10

waktu	berat zat aktif	peak area	FP	kadar dalam (ppm)	kadar mg/500ml	kadar x FP	faktor koreksi	kadar koreksi	%kadar terdisolusi
5	33,216	16993	2	0,051	0,025	0,051	0,000	0,051	0,153
10	33,216	22302	2	1,123	0,561	1,123	0,000	1,123	3,381
15	33,216	46707	2	6,051	3,026	6,051	0,006	6,057	18,235
30	33,216	63156	2	9,373	4,687	9,373	0,030	9,404	28,311
60	33,216	85684	2	13,923	6,961	13,923	0,047	13,970	42,058
120	33,216	97146	2	16,238	8,119	16,238	0,070	16,307	49,095
180	33,216	114360	2	19,714	9,857	19,714	0,081	19,795	59,596
240	33,216	131538	2	23,183	11,592	23,183	0,099	23,282	70,092
300	33,216	132835	2	23,445	11,723	23,445	0,116	23,561	70,933
360	33,216	135078	2	23,898	11,949	23,898	0,117	24,015	72,301
420	33,216	139074	2	24,705	12,353	24,705	0,119	24,825	74,737
480	33,216	139099	2	24,710	12,355	24,710	0,124	24,834	74,764

Lampiran 13

FORMULA 80:20

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	kadar(500)x FP	faktor koreksi	kadar +faktor koreksi	kadar terdisolusi
5	33,92	26167	2	1,903	0,952	1,903	0	1,903	5,611
10	33,92	62144	2	9,169	4,585	9,169	0,019	9,188	27,087
15	33,92	74927	2	11,751	5,875	11,751	0,092	11,842	34,912
30	33,92	76916	2	12,152	6,076	12,152	0,118	12,270	36,173
60	33,92	94436	2	15,690	7,845	15,690	0,122	15,812	46,615
120	33,92	103804	2	17,582	8,791	17,582	0,157	17,739	52,297
180	33,92	120017	2	20,857	10,428	20,857	0,176	21,032	62,006
240	33,92	129409	2	22,753	11,377	22,753	0,209	22,962	67,694
300	33,92	135367	2	23,957	11,978	23,957	0,228	24,184	71,297
360	33,92	140504	2	24,994	12,497	24,994	0,240	25,234	74,391
420	33,92	159623	2	28,855	14,428	28,855	0,250	29,105	85,805
480	33,92	159800	2	28,891	14,445	28,891	0,289	29,179	86,024

Lampiran 14

FORMULA 80:20

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar terkoreksi	kadar terdisolusi
5	32,032	35049	2	3,697	1,849	3,697	0,000	3,697	11,542
10	32,032	45514	2	5,811	2,905	5,811	0,037	5,848	18,255
15	32,032	63313	2	9,405	4,703	9,405	0,058	9,463	29,543
30	32,032	86119	2	14,011	7,005	14,011	0,094	14,105	44,034
60	32,032	95377	2	15,880	7,940	15,880	0,140	16,021	50,014
120	32,032	106962	2	18,220	9,110	18,220	0,159	18,379	57,377
180	32,032	125461	2	21,956	10,978	21,956	0,182	22,138	69,113
240	32,032	133443	2	23,568	11,784	23,568	0,220	23,788	74,262
300	32,032	139409	2	24,773	12,386	24,773	0,236	25,009	78,074
360	32,032	146285	2	26,161	13,081	26,161	0,248	26,409	82,446
420	32,032	147901	2	26,488	13,244	26,488	0,262	26,749	83,508
480	32,032	148791	2	26,668	13,334	26,668	0,265	26,932	84,080

Lampiran 15

FORMULA 70:30

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar + faktor koreksi	kadar terdisolusi
5	32,096	49404	2	6,596	3,298	6,596	0	6,596	20,551
10	32,096	67787	2	10,309	5,154	10,309	0,066	10,375	32,324
15	32,096	97678	2	16,345	8,173	16,345	0,103	16,448	51,247
30	32,096	111709	2	19,179	9,589	19,179	0,163	19,342	60,264
60	32,096	119812	2	20,815	10,408	20,815	0,192	21,007	65,450
120	32,096	126280	2	22,121	11,061	22,121	0,208	22,330	69,571
180	32,096	138709	2	24,631	12,316	24,631	0,221	24,853	77,432
240	32,096	139935	2	24,879	12,440	24,879	0,246	25,125	78,282
300	32,096	149759	2	26,863	13,432	26,863	0,249	27,112	84,471
360	32,096	157384	2	28,403	14,201	28,403	0,269	28,672	89,331
420	32,096	159548	2	28,840	14,420	28,840	0,284	29,124	90,740
480	32,096	159811	2	28,893	14,447	28,893	0,288	29,181	90,919

Lampiran 16

FORMULA 70:30

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar terkoreksi	kadar terdisolusi
5	31,648	31398	2	2,960	1,480	2,960	0,000	2,960	9,352
10	31,648	73286	2	11,419	5,710	11,419	0,030	11,449	36,175
15	31,648	88491	2	14,490	7,245	14,490	0,114	14,604	46,145
30	31,648	93269	2	15,455	7,727	15,455	0,145	15,600	49,291
60	31,648	129583	2	22,788	11,394	22,788	0,155	22,943	72,494
120	31,648	130241	2	22,921	11,461	22,921	0,228	23,149	73,146
180	31,648	133858	2	23,652	11,826	23,652	0,229	23,881	75,458
240	31,648	137316	2	24,350	12,175	24,350	0,237	24,587	77,688
300	31,648	142745	2	25,447	12,723	25,447	0,244	25,690	81,174
360	31,648	146340	2	26,173	13,086	26,173	0,254	26,427	83,503
420	31,648	156792	2	28,283	14,142	28,283	0,262	28,545	90,196
480	31,648	156898	2	28,305	14,152	28,305	0,283	28,588	90,330

Lampiran 17

FORMULA 100:0

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar + faktor koreksi	kadar terdisolusi
5	33,472	16876	2	0,027	0,014	0,027	0,000	0,027	0,081
10	33,472	18037	2	0,262	0,131	0,262	0,000	0,262	0,782
15	33,472	34059	2	3,497	1,749	3,497	0,003	3,500	10,456
30	33,472	40033	2	4,704	2,352	4,704	0,035	4,739	14,157
60	33,472	41130	2	4,925	2,463	4,925	0,047	4,972	14,855
120	33,472	49641	2	6,644	3,322	6,644	0,049	6,693	19,997
180	33,472	89955	2	14,786	7,393	14,786	0,066	14,852	44,371
240	33,472	103248	2	17,470	8,735	17,470	0,148	17,618	52,635
300	33,472	112136	2	19,265	9,633	19,265	0,175	19,440	58,078
360	33,472	123557	2	21,572	10,786	21,572	0,193	21,764	65,022
420	33,472	123745	2	21,609	10,805	21,609	0,216	21,825	65,204
480	33,472	130709	2	23,016	11,508	23,016	0,216	23,232	69,407

Lampiran 18

FORMULA 100:0

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	kadar + faktor koreksi	kadar terdisolusi
5	33,088	19724	2	0,602	0,301	0,602	0,000	0,602	1,820
10	33,088	25014	2	1,671	0,835	1,671	0,006	1,677	5,067
15	33,088	29776	2	2,632	1,316	2,632	0,017	2,649	8,006
30	33,088	49776	2	6,671	3,336	6,671	0,026	6,698	20,242
60	33,088	59768	2	8,689	4,345	8,689	0,067	8,756	26,462
120	33,088	65619	2	9,871	4,935	9,871	0,087	9,958	30,095
180	33,088	71139	2	10,986	5,493	10,986	0,099	11,084	33,499
240	33,088	82320	2	13,244	6,622	13,244	0,110	13,353	40,357
300	33,088	112037	2	19,245	9,623	19,245	0,132	19,377	58,563
360	33,088	119420	2	20,736	10,368	20,736	0,192	20,928	63,251
420	33,088	123841	2	21,629	10,814	21,629	0,207	21,836	65,994
480	33,088	126297	2	22,125	11,062	22,125	0,216	22,341	67,520

Lampiran 19

KONTROL

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	faktor + kadar koreksi	kadar terdisolusi
5	32	17728	2	0,199	0,100	0,199	0	0,199	0,622
10	32	23613	2	1,388	0,694	1,388	0,002	1,390	4,342
15	32	23770	2	1,419	0,710	1,419	0,014	1,433	4,479
30	32	23848	2	1,435	0,718	1,435	0,014	1,449	4,529
60	32	24134	2	1,493	0,746	1,493	0,014	1,507	4,710
120	32	24665	2	1,600	0,800	1,600	0,015	1,615	5,047
180	32	25616	2	1,792	0,896	1,792	0,016	1,808	5,650
240	32	26618	2	1,994	0,997	1,994	0,018	2,012	6,289
300	32	27271	2	2,126	1,063	2,126	0,020	2,146	6,707
360	32	33613	2	3,407	1,704	3,407	0,021	3,428	10,714
420	32	35421	2	3,772	1,886	3,772	0,034	3,806	11,895
480	32	37309	2	4,154	2,077	4,154	0,038	4,191	13,098

Lampiran 20

KONTROL

waktu	berat zat aktif	peak area	faktor pengenceran	kadar dalam (ppm)	kadar mg/500ml	faktor koreksi	kadar koreksi	faktor + kadar koreksi	kadar terdisolusi
5	32	19773	2	0,612	0,306	0,612	0,000	0,612	1,913
10	32	21057	2	0,871	0,436	0,871	0,006	0,878	2,742
15	32	24383	2	1,543	0,772	1,543	0,009	1,552	4,849
30	32	24570	2	1,581	0,790	1,581	0,015	1,596	4,988
60	32	25240	2	1,716	0,858	1,716	0,016	1,732	5,412
120	32	25483	2	1,765	0,883	1,765	0,017	1,782	5,570
180	32	25526	2	1,774	0,887	1,774	0,018	1,792	5,599
240	32	27084	2	2,089	1,044	2,089	0,018	2,106	6,582
300	32	27862	2	2,246	1,123	2,246	0,021	2,267	7,083
360	32	29633	2	2,603	1,302	2,603	0,022	2,626	8,206
420	32	29857	2	2,649	1,324	2,649	0,026	2,675	8,358
480	32	29933	2	2,664	1,332	2,664	0,026	2,690	8,408

Lampiran 21

Rata2 ISDN terdisolusi					
	f 90:10	f 80:20	f 70:30	f 100:0	kontrol
5	3,767	8,577	14,952	0,950	1,245
10	12,977	22,671	34,249	2,925	3,437
15	26,619	32,228	48,696	9,231	4,546
30	33,155	40,103	54,777	17,199	4,639
60	43,693	48,315	68,972	20,659	4,935
120	48,834	54,837	71,359	25,046	5,175
180	54,651	65,559	76,445	38,935	5,478
240	61,694	70,978	77,985	46,496	6,270
300	66,478	74,685	82,823	58,320	6,719
360	70,373	78,419	86,417	64,136	9,193
420	71,825	84,657	90,468	65,599	9,834
480	72,465	85,052	90,625	68,464	10,435

Lampiran 22

Hasil Perhitungan AUC dan DE_{480}%

Bobot patch :	103,8	102,8
Kadar rata2 :	29,0489	29,0489
Bobot rata2 patch :	102,075	102,075

Contoh perhitungan kadar patch $= \frac{103,8}{102,075}$ X 29,0489 = 29,5398072

Contoh perhitungan kadar% patch = $\frac{29,5398072}{33,216}$ X 100 = 88,932464 %

Y100t = 88,932464 X 480 = 42687,5827

DE_{480} $= \int_0^5 \frac{28777,796}{42687,5827}$ X 100 = 67,41491127

%

Lampiran 23

Hasil Perhitungan AUC dan DE% Formula 90:10		
MENIT	AUC(mg.menit)	AUC(mg.menit)
0 sampai 5	0,381	18,456
5 sampai 10	8,834	74,888
10 sampai 15	54,042	143,938
15 sampai 30	349,096	547,514
30 sampai 60	1055,522	1249,926
60 sampai 120	2734,573	2817,048
120 sampai 180	3260,720	2948,355
180 sampai 240	3890,642	3090,032
240 sampai 300	4230,760	3459,543
300 sampai 360	4297,014	3914,062
360 sampai 420	4411,136	4120,774
420 sampai 480	4485,048	4172,376
AUC TOTAL	28777,769	26556,913
DE%	67,415	62,212
DE% RATA-RATA		64,814

bobot patch :	103,8	102,8
kadar rata2 :	29,0489	29,0489
bobot rata2 patch :	102,075	102,075
kadar :	29,5398072	29,25522332
kadar % :	88,93246387	88,93246387
Y100t :	42687,58266	42687,58266

Lampiran 24

Hasil Perhitungan AUC dan DE% Formula 80:20

MENIT	AUC(mg.menit)	AUC(mg.menit)
0 sampai 5	14,029	28,855
5 sampai 10	81,747	74,493
10 sampai 15	154,999	119,496
15 sampai 30	533,137	551,825
30 sampai 60	1241,822	1410,721
60 sampai 120	2967,384	3221,732
120 sampai 180	3429,097	3794,686
180 sampai 240	3891,006	4301,240
240 sampai 300	4169,750	4570,063
300 sampai 360	4370,663	4815,596
360 sampai 420	4805,890	4978,643
420 sampai 480	5154,874	5027,648
AUC TOTAL	30814,398	32894,997
DE%	73,479	70,888
DE% RATA-RATA		72,183

bobot patch :	100,1	104,6
kadar rata 2:	29,9976	29,9976
bobot rata2 patch:	101,325	101,325
kadar:	29,6349	30,96717
kadar %:	87,3671	96,6757
Y100t:	41936,23	46404,36

Lampiran 25

Hasil Perhitungan AUC dan DE% Formula 70:30		
MENIT	AUC(mg.menit)	AUC(mg.menit)

0 sampai 5	51,378	23,381
5 sampai 10	132,187	113,819
10 sampai 15	208,927	205,801
15 sampai 30	836,331	715,773
30 sampai 60	1885,712	1826,783
60 sampai 120	4050,649	4369,209
120 sampai 180	4410,107	4458,126
180 sampai 240	4671,431	4594,385
240 sampai 300	4882,592	4765,868
300 sampai 360	5214,052	4940,321
360 sampai 420	5402,126	5210,959
420 sampai 480	5449,787	5415,766
AUC TOTAL	37195,278	36640,192
DE%	82,725	79,232
DE% RATA-RATA		80,978

bobot patch	98,9	100,3
kadar rata2	30,872	30,872
bobot rata2	101,555	101,555
kadar	30,06489882	30,4904889
kadar%	93,67179344	96,34254581
Y100t	44962,46085	46244,42199

Lampiran 26

Hasil Perhitungan AUC dan DE% Formula 100:0		
MENIT	AUC(mg.menit)	AUC(mg.menit)
0 sampai 5	0,202	4,550

5 sampai 10	2,157	17,217
10 sampai 15	28,095	32,682
15 sampai 30	184,597	211,856
30 sampai 60	435,178	700,563
60 sampai 120	1045,545	1696,710
120 sampai 180	1931,036	1907,820
180 sampai 240	2910,181	2215,704
240 sampai 300	3321,369	2967,623
300 sampai 360	3692,984	3654,430
360 sampai 420	3906,788	3877,359
420 sampai 480	4038,343	4005,442
AUC TOTAL	21496,475	21291,957
DE%	47,038	49,847
DE% RATA-RATA		48,442

bobot patch	104,6	103,4
kadar rata2	27,3818	27,3818
bobot rata2	95,053	95,053
kadar	30,13199247	29,78630995
kadar %	95,20978409	88,98873672
Y100t	45700,69636	42714,59362

Lampiran 27

Hasil Perhitungan AUC dan DE% Formula Kontrol		
MENIT	AUC(mg.menit)	AUC(mg.menit)
0 sampai 5	1,490	4,735
5 sampai 10	11,889	11,523

10 sampai 15	21,124	18,791
15 sampai 30	64,710	73,054
30 sampai 60	132,742	154,469
60 sampai 120	280,366	326,213
120 sampai 180	307,390	331,745
180 sampai 240	343,077	361,811
240 sampai 300	373,444	405,900
300 sampai 360	500,599	454,121
360 sampai 420	649,669	491,996
420 sampai 480	718,174	497,994
AUC TOTAL	3404,673	3132,351
DE%	15,03742252	13,8347
DE% RATA-RATA		14,4360

bobot patch	104,4	101
kadar rata2	14,698	14,698
b0bot rata2	97,375	97,375
kadar	15,75836919	15,2451656
kadar%	47,16944801	47,16944801
Y100t	22641,33504	22641,33504

Lampiran 28

Perhitungan Kinetika Orde Nol

Rata2 ISDN terdisolusi waktu vs % terdisolusi					
	f 90:10	f 80:20	f 70:30	f 100:0	kontrol
5	3,874	8,751	14,931	0,983	1,268

10	13,357	23,493	34,099	3,029	3,542
15	27,455	33,290	48,519	9,607	4,664
30	34,225	41,210	54,597	17,869	4,759
60	45,127	49,738	68,672	21,450	5,061
120	50,447	56,435	71,061	26,017	5,308
180	56,479	67,454	76,146	40,525	5,625
240	63,772	73,046	77,675	48,393	6,435
300	68,694	76,863	82,503	60,652	6,895
360	72,705	80,692	86,092	66,707	9,460
420	74,210	87,273	90,108	68,221	10,126
480	74,868	87,675	90,264	71,208	10,753

Lampiran 29

Perhitungan Kinetika Orde Satu

Rata2 ISDN terdisolusi dalam waktu vs log % terdisolusi					
	F 90:10	F 80.20	F 70:30	F 100:0	KONTROL
5	0,5881	0,9420	1,1741	-0,0073	0,1030
10	1,1257	1,3709	1,5327	0,4813	0,5493
15	1,4386	1,5223	1,6859	0,9826	0,6688
30	1,5343	1,6150	1,7372	1,2521	0,6775

60	1,6544	1,6967	1,8368	1,3314	0,7043
120	1,7028	1,7515	1,8516	1,4153	0,7250
180	1,7519	1,8290	1,8816	1,6077	0,7501
240	1,8046	1,8636	1,8903	1,6848	0,8086
300	1,8369	1,8857	1,9165	1,7828	0,8385
360	1,8616	1,9068	1,9350	1,8242	0,9759
420	1,8705	1,9409	1,9548	1,8339	1,0055
480	1,8743	1,9429	1,9555	1,8525	1,0315

Lampiran 30

Perhitungan Model Higuchi

Rata2 ISDN terdisolusi dalam akar waktu vs % terdisolusi					
	f 90:10	f 80:20	f 70:30	f 100:0	kontrol
2,24	3,874	8,751	14,931	0,983	1,268
3,16	13,357	23,493	34,099	3,029	3,542
3,87	27,455	33,290	48,519	9,607	4,664

5,48	34,225	41,210	54,597	17,869	4,759
7,75	45,127	49,738	68,672	21,450	5,061
11	50,447	56,435	71,061	26,017	5,308
13,4	56,479	67,454	76,146	40,525	5,625
15,5	63,772	73,046	77,675	48,393	6,435
17,7	68,694	76,863	82,503	60,652	6,895
19	72,705	80,692	86,092	66,707	9,460
20,5	74,210	87,273	90,108	68,221	10,126
21,9	74,868	87,675	90,264	71,208	10,753

Lampiran 31

Perhitungan Metode Korsmayer-pepps

Rata2 ISDN terdisolusi dalam log waktu vs log % terdisolusi					
	f 70:30	f 80:20	f 90:10	f 100:0	kontrol
0,699	1,174	0,942	0,588	-0,007	0,103
1,000	1,533	1,371	1,126	0,481	0,549
1,176	1,686	1,522	1,439	0,983	0,669
1,477	1,737	1,615	1,534	1,252	0,677
1,778	1,837	1,697	1,654	1,331	0,704

2,079	1,852	1,752	1,703	1,415	0,725
2,255	1,882	1,829	1,752	1,608	0,750
2,380	1,890	1,864	1,805	1,685	0,809
2,477	1,916	1,886	1,837	1,783	0,839
2,556	1,935	1,907	1,862	1,824	0,976
2,623	1,955	1,941	1,870	1,834	1,005
2,681	1,956	1,943	1,874	1,853	1,032

Lampiran 32

Analisis Data *Dissolusi Effisiensi* Dengan ANAVA Satu Jalan

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
formula patch	10	3,00	1,491	1	5

One-Sample Kolmogorov-Smirnov Test

	formula patch

N		10
Normal Parameters[a,b]	Mean	3,00
	Std. Deviation	1,491
Most Extreme Differences	Absolute	,149
	Positive	,149
	Negative	-,149
Kolmogorov-Smirnov Z		,471
Asymp. Sig. (2-tailed)		,980

Lampitan 33

Descriptives

Dissolusi effisiensi

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maxim m
					Lower Bound	Upper Bound		
patch 70:30	2	80,97850	2,469924	1,746500	58,78711	103,16989	79,232	82,7
patch 80:20	2	72,18350	1,832114	1,295500	55,72261	88,64439	70,888	73,4
patch 90:10	2	64,81350	3,679077	2,601500	31,75831	97,86869	62,212	67,4
patch 100:0	2	48,44250	1,986263	1,404500	30,59664	66,28836	47,038	49,8
patch kontrol	2	14,43606	,850453	,601361	6,79504	22,07708	13,835	15,0
Total	10	56,17081	24,773958	7,834213	38,44859	73,89303	13,835	82,7

Test of Homogeneity of Variances

dissolusi effisiensi

Levene Statistic	df1	df2	Sig.
2,896E15	4	5	,0

ANOVA

Dissolusi effisiensi

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5496,080	4	1374,020	248,365	,000
Within Groups	27,661	5	5,532		
Total	5523,741	9			

Lampiran 34

POST HOCK TEST

Multiple Comparisons

Dependent Variable:dissolusi effisiensi

	(I) formulasi patch	(J) formulasi patch	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Scheffe	patch7	patch8	8,79500	2,35207	,101	-1,9240	19,5140
		patch9	16,16500*	2,35207	,009	5,4460	26,8840
		patch10	32,53600*	2,35207	,000	21,8170	43,2550
		patchkont	66,54244*	2,35207	,000	55,8234	77,2615
	patch8	patch7	-8,79500	2,35207	,101	-19,5140	1,9240
		patch9	7,37000	2,35207	,176	-3,3490	18,0890
		patch10	23,74100*	2,35207	,002	13,0220	34,4600

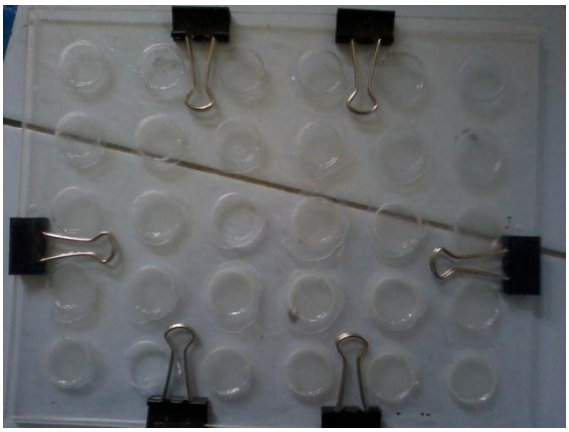
		patchkont	57,74744*	2,35207	,000	47,0284	68,4665
	patch9	patch7	-16,16500*	2,35207	,009	-26,8840	-5,4460
		patch8	-7,37000	2,35207	,176	-18,0890	3,3490
		patch10	16,37100*	2,35207	,009	5,6520	27,0900
		patchkont	50,37744*	2,35207	,000	39,6584	61,0965
	patch10	patch7	-32,53600*	2,35207	,000	-43,2550	-21,8170
		patch8	-23,74100*	2,35207	,002	-34,4600	-13,0220
		patch9	-16,37100*	2,35207	,009	-27,0900	-5,6520
		patchkont	34,00644*	2,35207	,000	23,2874	44,7255
	patchkont	patch7	-66,54244*	2,35207	,000	-77,2615	-55,8234
		patch8	-57,74744*	2,35207	,000	-68,4665	-47,0284
		patch9	-50,37744*	2,35207	,000	-61,0965	-39,6584
		patch10	-34,00644*	2,35207	,000	-44,7255	-23,2874
Games-Howell	patch7	patch8	8,79500	2,17453	,179	-9,6487	27,2387
		patch9	16,16500	3,13338	,129	-12,3184	44,6484
		patch10	32,53600*	2,24118	,017	14,3512	50,7208
		patchkont	66,54244*	1,84713	,019	36,5744	96,5105
	patch8	patch7	-8,79500	2,17453	,179	-27,2387	9,6487
		patch9	7,37000	2,90622	,401	-26,9743	41,7143
		patch10	23,74100*	1,91074	,020	8,9292	38,5528
		patchkont	57,74744*	1,42827	,010	39,7352	75,7596
	patch9	patch7	-16,16500	3,13338	,129	-44,6484	12,3184
		patch8	-7,37000	2,90622	,401	-41,7143	26,9743
		patch10	16,37100	2,95642	,138	-16,0437	48,7857
		patchkont	50,37744	2,67010	,055	-4,3765	105,1313
	patch10	patch7	-32,53600*	2,24118	,017	-50,7208	-14,3512
		patch8	-23,74100*	1,91074	,020	-38,5528	-8,9292
		patch9	-16,37100	2,95642	,138	-48,7857	16,0437

		patchkont	34,00644*	1,52783	,026	13,2791	54,7338
	patchkont	patch7	-66,54244*	1,84713	,019	-96,5105	-36,5744
		patch8	-57,74744*	1,42827	,010	-75,7596	-39,7352
		patch9	-50,37744	2,67010	,055	-105,1313	4,3765
		patch10	-34,00644*	1,52783	,026	-54,7338	-13,2791

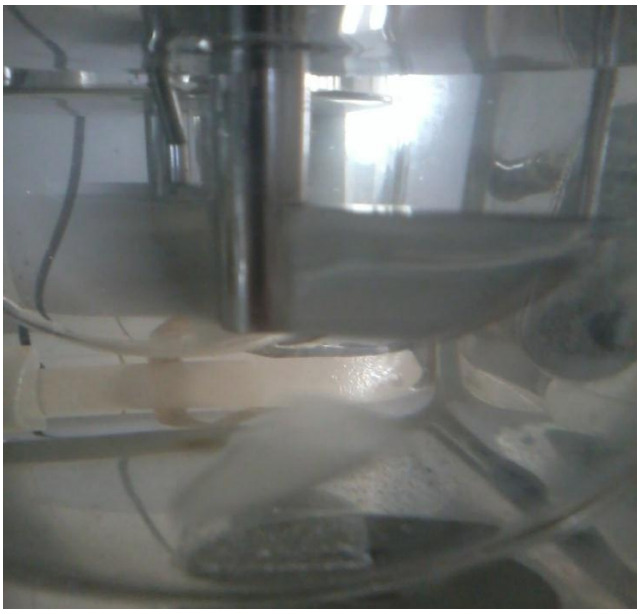
*. The mean difference is significant at the 0.05 level.

Lampiran 35

Gambar Cetakan Dan Patch Yang baru Diteteskan



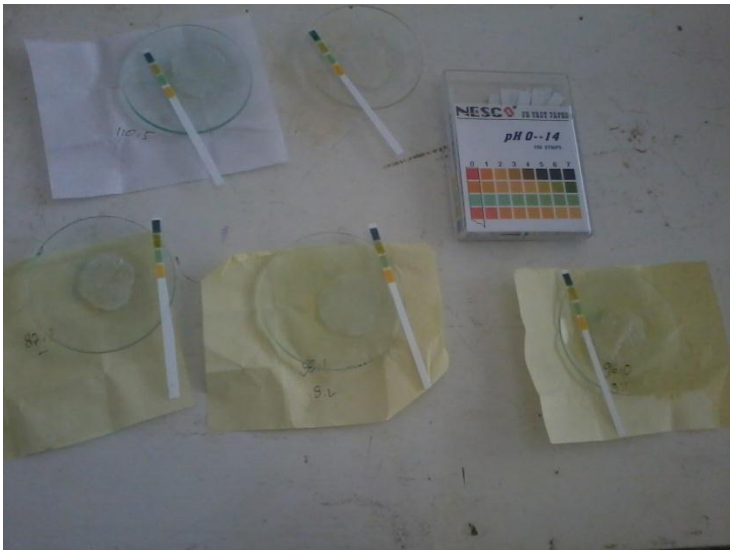
Gambar patch saat proses dissolusi



Lampiran 36

Gambar alat dissolusi Tester

Gambar Hasil Uji Surface pH



Lampiran 37

Gambar petch