LAMPIRAN A

HASIL UJI STANDARISASI

Hasil Perhitungan Penetapan Susut Pengeringan Simplisia

Replikasi	Hasil susut pengeringan
1	8,47
2	8,45
3	8,49
Rata-rata	8,47

Hasil Perhitungan Penetapan Susut Pengeringan Ekstrak Kering

Replikasi	Hasil susut pengeringan
1	9,17
2	9,11
3	9,21
Rata-rata	9,16

Hasil Perhitungan Penetapan Kadar Abu Total Simplisia

No	W (krus kosong) (gram)	W (Bahan) (gram)	W (krus+abu) (gram)	% Kadar Abu	Rata-rata (%)
1	21,5711	2,0062	21,7364	8,2394	
2	21,5324	2,0043	21,7037	8,5466	8,38
3	21,5403	2,0029	21,7080	8,3728	

$$\text{Kadar abu} = \frac{(\text{berat krus} + \text{serbuk}) - \text{berat krus kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{21{,}7364 - 21{,}5711}{2{,}0062} \times 100\ \%$$

$$= 8{,}2392\ \%$$

1. $$\text{Kadar abu} = \frac{(\text{berat krus} + \text{serbuk}) - \text{berat krus kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{21{,}7037 - 21{,}5324}{2{,}0043}$$

$$= 8{,}5466\ \%$$

2. $$\text{Kadar abu} = \frac{(\text{berat krus} + \text{serbuk}) - \text{berat krus kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{21{,}7080 - 21{,}5403}{2{,}0029} \times 100\ \%$$

$$= 8{,}3728\ \%$$

Hasil Perhitungan Penetapan Kadar Abu Total Ekstrak

No	W (krus kosong) (gram)	W (Bahan) (gram)	W (krus+abu) (gram)	% Kadar Abu	Rata-rata (%)
1	23,5320	2,0714	23,7452	10,2925	
2	23,5314	2,0810	23,7339	9,7308	10,00
3	23,5329	2,0509	23,7380	10,0004	

1. Kadar abu = $\frac{\text{(berat krus + ekstrak) – berat krus kosong}}{\text{berat ekstrak}}$ x 100 %

$= \frac{23,7452 - 23,5320}{2,0714}$ x 100 %

= 10,2925 %

2. Kadar abu = $\frac{\text{(berat krus + ekstrak) – berat krus kosong}}{\text{berat ekstrak}}$ x 100 %

$= \frac{23,7339 - 23,5314}{2,0810}$

= 9,7308 %

3. Kadar abu = $\frac{\text{(berat krus + ekstrak) – berat krus kosong}}{\text{berat ekstrak}}$ x 100 %

$= \frac{23,7380 - 23,5329}{2,0509}$ x 100 %

= 10,0004 %

Hasil Perhitungan Randemen Estrak

$$\frac{\text{berat ekstrak kental}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{534\ ,68}{4000} \times 100$$

$$= 13{,}367\ \%$$

Hasil Perhitungan Kadar Sari Larut Etanol

No	Berat cawan+serbuk setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	kadar sari larut etanol (%)	Rata-rata (%)
1	54, 2005	53, 7647	5, 0250	8,67	
2	55, 0621	54, 5935	5, 0226	9,32	8,74
3	54, 2089	53, 7951	5, 0239	8,23	

1. Kadar sari larut etanol

$$= \frac{(\text{berat cawan} + \text{serbuk}) - \text{berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{54{,}2005 - 53{,}7647}{5{,}0250} \times 100\ \%$$

$$= 8{,}67\ \%$$

2. Kadar sari larut etanol

$$= \frac{(\text{berat cawan} + \text{serbuk}) - \text{berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{55{,}0621 - 54{,}5935}{5{,}0226} \times 100\ \%$$

$$= 9{,}32\ \%$$

3. Kadar sari larut etanol

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{54{,}2089 - 53{,}7951}{5{,}0239} \times 100\ \%$$

$$= 8{,}23\ \%$$

Hasil Perhitungan Kadar Sari Larut Air

No	Berat cawan+serbuk setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	kadar sari larut etanol (%)	Rata-rata (%)
1	55, 3054	54, 6207	5, 0219	13,63	
2	54, 1914	53, 4459	5, 0207	14,84	14,44
3	54, 2875	53, 5412	5, 0224	14,85	

1. Kadar sari larut air

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{55{,}3054 - 54{,}6207}{5{,}0219} \times 100\ \%$$

$$= 13{,}63\ \%$$

2. Kadar sari larut air

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{54{,}1914 - 53{,}4459}{5{,}0207} \times 100\%$$

$$= 14{,}84\ \%$$

3. Kadar sari larut air

$$= \frac{\text{(berat cawan + serbuk) – berat cawan kosong}}{\text{berat serbuk}} \times 100\ \%$$

$$= \frac{54{,}2875 - 53{,}5412}{5{,}0224} \times 100\ \%$$

$$= 14{,}85\ \%$$

Hasil Perhitungan Harga Rf pada pemeriksaan secara KLT dengan pelarut kloroform metanol : air (64:50:10)

	Noda A		Noda B	
	Warna	**Rf**	**Warna**	**Rf**
1	Biru	0,83	-	-
2	Biru	0,83	Biru	0,86
3	Biru	0,82	Biru	0,86
4	Biru	0,80	Biru	0,86
5	Biru	0,78	Biru	0,85
6	Biru	0,78	Biru	0,85
7	Biru	0,83	Biru	0,86

$$Rf = \frac{\text{jarak yang ditempuh oleh zat}}{\text{jarak yang ditempuh oleh fase gerak}}$$

1. $Rf\text{A} = \frac{6{,}7}{8} = 0{,}8375$

2. $Rf\text{A} = \frac{6{,}7}{8} = 0{,}8375 \quad Rf\text{B} = \frac{6{,}9}{8} = 0{,}8625$

3. $Rf\text{A} = \frac{6{,}6}{8} = 0{,}8250 \quad Rf\text{B} = \frac{6{,}9}{8} = 0{,}8625$

4. $Rf\text{A} = \frac{6{,}4}{8} = 0{,}8000 \quad Rf\text{B} = \frac{6{,}9}{8} = 0{,}8625$

5. $Rf\text{A} = \frac{6{,}3}{8} = 0{,}7875 \quad Rf\text{B} = \frac{6{,}8}{8} = 0{,}8500$

6. $Rf\text{A} = \frac{6,3}{8} = 0,7875 \quad Rf\text{B} = \frac{6,8}{8} = 0,8500$

7. $Rf\text{A} = \frac{6,7}{8} = 0,8375 \quad Rf\text{B} = \frac{6,9}{8} = 0,8625$

LAMPIRAN B

HASIL UJI MUTU FISIK GRANUL

Mutu fisik yang diuji	Replikasi	Formula Tablet Hisap Ekstrak Daun Sirih Merah				Persyaratan
		F I	F II	F III	F IV	
Kadar air (persen)	1	3,50	3,45	3,48	3,77	3-5 % (Voigt, 1995)
	2	3,52	3,39	3,51	3,68	
	3	3,58	3,42	3,455	3,75	
	$\overline{X}$	3,53	3,42	3,51	3,73	
	SD	0,0416	0,0300	0,0351	0,0472	
Waktu alir (detik)	1	8,97	8,73	9,35	8,59	Tidak lebih dari 10 detik (Parrott, 1971)
	2	9,90	8,77	9,37	8,63	
	3	8,94	8,84	9,31	8,62	
	1	9,91	8,82	9,33	8,66	
	2	9,96	8,87	9,28	8,68	
	3	9,94	8,84	9,34	8,57	
	1	9,93	8,85	9,37	8,67	
	2	9,95	8,79	9,29	8,64	
	3	9,91	8,86	9,39	8,61	
	$\overline{X}$	9,71	8,81	9,39	8,62	
	SD	0,4298	0,0464	0,0377	0,0367	
Sudut diam (derajat)	1	30,22	30,79	32,53	33,44	30-40 Cukup baik (Wells, 1988)
	2	30,19	30,80	31,88	33,52	
	3	30,31	30,74	32,60	33,37	
	1	30,27	31,03	32,56	33,51	
	2	30,25	30,77	32,41	32,46	
	3	30,20	30,71	32,26	32,54	
	1	30,17	30,76	32,79	33,39	
	2	30,29	30,72	32,65	33,50	
	3	30,30	30,83	33,05	32,49	
	$\overline{X}$	30,24	30,79	32,52	33,13	
	SD	0,0515	0,0963	0,3293	0,4823	

	1	10,96	9,77	14,98	9,87	
	2	10,98	10,14	14,99	9,83	
	3	10,97	10,06	15,03	10,27	5-15 %
Indek	1	9,99	10,08	14,95	10,11	Baik
kompresibilitas	2	9,97	10,03	15,08	10,05	sekali
(%)	3	10,01	9,83	14,94	9,82	(Fiese dan
	1	10,02	10,02	15,95	10,01	Hagen,
	2	10,04	9,96	16,00	9,99	19,86)
	3	9,95	9,96	16,05	9,94	
	$\overline{X}$	10,3211	9,9833	15,3300	9,9877	
	SD	0,4874	0,1190	0,5048	0,1449	

LAMPIRAN C

HASIL UJI KEKERASAN TABLET HISAP EKSTRAK DAUN SIRIH MERAH

Batch I

No	Kekerasan Tablet Hisap Ekstrak Daun Sirih Merah (kp)			
	Formula I	Formula II	Formula III	Formula IV
1	9,7	12,9	12,8	12,8
2	8,9	12,5	12,6	12,6
3	9,0	12,2	12,7	12,9
4	8,8	11,3	12,9	12,5
5	8,9	13,1	12,5	13,8
6	9,1	12,2	13,0	12,8
7	8,2	12,3	12,3	12,5
8	8,8	11,8	13,2	13,7
9	9,3	12,5	13,0	12,7
10	8,7	12,8	12,7	12,7
$\bar{X}$ ± SD	8,94 ± 0,3921	12,36 ± 0,5337	12,77 ± 0,2667	12,90 ± 0,4666

Batch II

No	Kekerasan Tablet Hisap Ekstrak Daun Sirih Merah (kp)			
	Formula I	Formula II	Formula III	Formula IV
1	8,5	11,7	12,6	8,5
2	8,3	10,8	12,4	8,4
3	7,9	11,4	11,9	8,7
4	8,7	11,2	12,0	7,9
5	8,6	11,7	12,3	8,8
6	8,4	10,2	11,7	8,4
7	9,0	10,9	12,3	8,0
8	8,7	11,0	11,1	8,3
9	9,1	11,5	11,9	7,7
10	8,4	11,1	12,5	9,6
$\bar{X}$ ± SD	8,56 ± 0,3470	11,15 ± 0,4600	12,07 ± 0,4498	8,43 ± 0,5375

Batch III

No	Kekerasan Tablet Hisap Ekstrak Daun Sirih Merah (kp)			
	Formula I	Formula II	Formula III	Formula IV
1	9,4	13,8	13,9	9,9
2	8,3	12,4	14,0	9,6
3	8,7	13,3	14,5	10
4	9,7	13,8	13,5	9,8
5	8,3	13,6	13,6	10,3
6	9,5	12,5	14,3	9,7
7	9,1	13,7	13,9	9,6
8	8,9	12,8	13,6	10,3
9	8,6	12,5	13,5	9,9
10	9,6	13,7	13,8	10,2
$\bar{x}$ ± SD	9,01 ± 0,5279	13,21 ± 0,5933	13,86 ± 0,3373	9,93 ± 0,2668

LAMPIRAN D

HASIL UJI KERAPUHAN TABLET HISAP EKSTRAK DAUN SIRIH MERAH

***Batch* I**

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	$\bar{x}$ ±SD
I	1	16,48	16,45	0,1820	0,1827
	2	16,45	16,42	0,1823	±
	3	16,30	16,27	0,1840	0,0010
II	1	16,39	16,36	0,1830	0,1863
	2	15,93	15,90	0,1883	±
	3	15,97	15,94	0,1878	0,0092
III	1	16,35	16,32	0,1834	0,1850
	2	16,28	16,25	0,1842	±
	3	15,99	15,96	0,1876	0,0022
IV	1	16,17	16,15	0,1236	0,1235
	2	16,20	16,18	0,1234	±
	3	16,22	16,20	0,1233	0,0001

***Batch* II**

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	$\bar{x}$ ±SD
I	1	16,06	16,03	0,1867	0,1875
	2	15,90	15,87	0,1886	±
	3	16,01	15,98	0,1873	0,0009
II	1	16,25	16,22	0,1846	0,1847
	2	16,29	16,26	0,1841	±
	3	16,17	16,14	0,1855	0,0007
III	1	16,87	16,85	0,1185	0,1183
	2	16,97	16,95	0,1178	±
	3	16,83	16,81	0,1188	0,0005
IV	1	16,14	16,12	0,1239	0,1232
	2	16,28	16,26	0,1228	±
	3	16,25	16,23	0,1230	0,0005

***Batch* III**

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	$\bar{x}$ ±SD
I	1	16,36	16,33	0,1833	0,1834 ± 0,0004
	2	16,30	16,27	0,1840	
	3	16,38	16,35	0,1831	
II	1	16,07	16,04	0,1866	0,1859 ± 0,0007
	2	16,19	16,16	0,1852	
	3	16,12	16,09	0,1861	
III	1	16,24	16,21	0,1847	0,1847 ± 0,0003
	2	16,20	16,17	0,1851	
	3	16,26	16,23	0,1845	
IV	1	16,11	16,09	0,1241	0,1236 ± 0,0004
	2	16,18	16,16	0,1236	
	3	16,22	16,20	0,1233	

LAMPIRAN E

HASIL UJI WAKTU HANCUR TABLET HISAP EKSTRAK DAUN SIRIH MERAH

Batch I

Replikasi	Waktu Hancur (menit)			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	22,12	20,19	28,16	26,07
2	22,16	20,15	28,10	28,11
3	22,11	20,18	28,13	26,10
$\overline{x}$ ± SD	22,13 ± 0,0265	20,17 ± 0,0208	28,13 ± 0,0300	26,09 ± 0,0208

Batch II

Replikasi	Waktu Hancur (menit)			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	22,09	21,30	28,26	25,57
2	22,11	23,35	29,24	25,51
3	22,06	21,31	28,24	25,53
$\overline{x}$ ± SD	22,08 ± 0,0251	21,32 ± 0,0264	28,24 ± 0,0115	25,53 ± 0,0305

Batch III

Replikasi	Waktu Hancur (menit)			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	21,17	21,29	28,17	25,39
2	21,14	21,27	28,20	25,38
3	21,18	21,22	28,19	25,41
$\overline{x}$ ± SD	21,16 ± 0,0208	21,26 ± 0,0360	28,18 ± 0,0152	25,39 ± 0,0152

LAMPIRAN F

CONTOH PERHITUNGAN

Contoh perhitungan sudut diam:

Formula I:

W persegi panjang = 3,40 gram

W lingkaran = 0,87 gram

Tinggi gundukan granul = 4,20 cm

Luas persegi panjang = 21,5 x 29,6

$= 636,4 \text{ cm}^2$

Luas lingkaran $= \frac{0,87}{3,40} \times 636,4$

$= 162,84 \text{ cm}^2$

$A = \pi \times r^2$

$r^2 = \frac{A}{\pi}$

$r = \sqrt{\frac{162,84}{3,14}}$

$r = 7,20$ cm

$tg\ \alpha = \frac{t}{r}$

$= \frac{4,20}{7,20}$

$= 0,5833$

$\alpha = 30,25°$

Contoh perhitungan Indeks kompresibilitas

Formula I:

Berat gelas ukur kosong (W_1) = 121,21 gram

Berat gelas ukur kosong + granul (W_2) = 179,12 gram

V_1 = 100 ml

V_2 = 89 ml

$$\text{Bj nyata} = \frac{(W2 - W1)}{V1} = \frac{(179{,}12 - 121{,}21)}{100} = 0{,}5791$$

$$\text{Bj mampat} = \frac{(W2 - W1)}{V2} = \frac{(179{,}12 - 121{,}21)}{89} = 0{,}6506$$

$$\% \text{ Kompresibilitas} = \left[1 - \frac{Bj.nyata}{Bj.mampat}\right] \text{ x } 100\ \%$$

$$= \left[1 - \frac{0{,}5791}{0{,}6506}\right] \text{ x } 100\ \%$$

$$= 10{,}98\ \%$$

LAMPIRAN G

DETERMINASI SIRIH MERAH

DINAS KESEHATAN PROPINSI JAWA TIMUR
UPT MATERIA MEDICA
Jalan Lahor No.87 Telp. (0341) 593396 Batu (65313)
KOTA BATU

Nomor : 074 / 85/ 101.8 / 2010
Sifat : Biasa
Perihal : **Determinasi Tanaman Sirih Merah**

Memenuhi permohonan saudara :
Nama : SANELA ARIANI
NIM : 2443007109
Fakultas : Fakultas Farmasi
Universitas Katolik Widya Mandala Surabaya

1. Perihal determinasi tanaman Sirih Merah :

Kingdom	:	Plantae
Divisi	:	Spermatophyta
Sub divisi	:	Angiospermae
Kelas	:	Dicotyledonae
Bangsa	:	Piperales
Suku	:	Piperaceae
Marga	:	Piper
Jenis	:	*Piper crocatum*
Sinonim	:	*Piper cf.fragile* Benth

2. Nama Simplisia : *Piperis crocati Folium* / Daun Sirih Merah

3. Kandungan kimia : Alkaloid, terpenoid, isprenoid, flavonoid, saponin, cyanogenik, glukosida, glu-casonilate, dan non protein amino acid.

4. Penggunaan : Penelitian

Demikian determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu , 4 Nopember 2010
An. Kepala UPT Materia Medica Batu
Ka Sub Bag TU

Unik Purwaningtyas, SKM
NIP. 196407241 198702 2 002

LAMPIRAN H

TABEL UJI HSD (0,05)

d.k. \ k	2	3	4	5	6	7	8	9	10	11
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99	7.17
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49	6.65
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16	6.30
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92	6.05
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74	5.87
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60	5.72
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49	5.61
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39	5.51
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32	5.43
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25	5.36
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20	5.31
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15	5.26
17	2.98	3.63	4.02	4.30	4.52	4.71	4.86	4 99	5.11	5.21
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07	5.17
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04	5.14
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01	5.11
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92	5.01
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82	4.92
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73	4.82
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65	4.73
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56	4.64
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47	4.55

Catatan kaki: Dari *Annals of mathematical statistics.* Diulang cetak seizin penerbit, The Institute of Mathematical Statistics.

Sumber: Schefler (1987).

LAMPIRAN I

TABEL UJI T

v	α				
	0.10	0.05	0.025	0.01	0.005
1	3.078	6.314	12.706	31.821	63.657
2	1.886	2.920	4.303	6.965	9.925
3	1.638	2.353	3.182	4.451	5.841
4	1.533	2.132	2.776	3.747	4.604
5	1.476	2.015	2.561	3.365	4.012
6	1.440	1.943	2.447	3.143	3.707
7	1.415	1.895	2.365	2.998	3.499
8	1.397	1.860	2.306	2.896	3.355
9	1.383	1.833	2.262	2.821	3.250
10	1.372	1.812	2.228	2.764	3.169
11	1.363	1.796	2.201	2.718	3.106
12	1.356	1.782	2.179	2.681	3.055
13	1.350	1.771	2.160	2.650	3.012
14	1.345	1.761	2.145	2.624	2.977
15	1.341	1.753	2.131	2.602	2.947
16	1.337	1.746	2.120	2.583	2.921
17	1.333	1.740	2.110	2.567	2.898
18	1.330	1.734	2.101	2.552	2.878
19	1.328	1.729	2.093	2.539	2.861
20	1.325	1.725	2.086	2.528	2.845
21	1.323	1.721	2.080	2.518	2.831
22	1.321	1.717	2.074	2.508	2.819
23	1.319	1.714	2.069	2.500	2.807
24	1.318	1.711	2.064	2.492	2.797
25	1.316	1.708	2.060	2.485	2.787
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
inf.	1.282	1.645	1.960	2.326	2.576

Sumber : Ronald E. Walpole (1995) : Pengantar Statistika.

LAMPIRAN J

TABEL UJI F

TABEL DISTRIBUSI F UNTUK 5% DAN 1%

Baris atas untuk taraf signifikan 5%
Baris bawah untuk taraf signifikan 1%

V_2 = dk penyebut	V_1 = dk pembilang																						
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
1	161	200	216	225	230	234	237	239	241	242	243	244	245	246	248	249	250	251	252	253	253	254	254	254
	4052	4999	5403	5625	5764	5859	5928	5961	6022	6056	6082	6106	6142	61,69	6208	6234	6258	6286	6302	6323	6334	6352	6361	6366
2	18,51	19,00	19,16	19,25	19,30	19,33	19,36	19,37	19,38	19,39	19,40	19,41	19,42	19,43	19,44	19,45	19,46	19,47	19,47	19,48	19,49	19,49	19,50	19,50
	98,49	99,01	99,17	99,25	99,30	99,33	99,34	99,36	97,38	99,40	99,41	99,42	99,43	99,44	99,45	99,46	99,47	99,48	99,48	99,49	99,49	99,49	99,50	99,50
3	10,13	9,55	9,28	9,12	9,01	8,94	8,88	8,84	8,81	8,78	8,76	8,74	8,71	8,69	8,66	8,64	8,62	8,60	8,58	8,57	8,56	8,54	8,54	8,53
	34,12	30,81	29,46	28,71	28,24	27,91	27,67	27,49	27,34	27,23	27,13	27,05	26,92	26,83	26,69	26,60	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,93	5,91	5,87	5,84	5,80	5,77	5,74	5,71	5,70	5,68	5,66	5,65	5,64	5,53
	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,54	14,45	14,37	14,24	14,15	14,02	13,93	13,83	13,74	13,69	13,61	13,57	13,52	13,48	13,46
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,78	4,74	4,70	4,68	4,64	4,60	4,56	4,53	4,50	4,46	4,44	4,42	4,40	4,38	4,37	4,36
	16,26	13,27	12,06	11,39	10,97	10,67	10,45	10,27	10,15	10,05	9,96	9,89	9,77	9,68	9,55	9,47	9,38	9,29	9,24	9,17	9,13	9,07	9,04	9,02
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,03	4,00	3,96	3,92	3,87	3,84	3,81	3,77	3,75	3,72	3,71	3,69	3,68	3,67
	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99	6,94	6,90	6,88
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,63	3,60	3,57	3,52	3,49	3,44	3,41	3,38	3,34	3,32	3,29	3,28	3,25	3,24	3,23
	12,25	9,55	8,45	7,85	7,46	7,19	7,00	6,84	6,71	6,62	6,54	6,47	6,35	6,27	6,15	6,07	5,98	5,90	5,85	5,78	5,75	5,70	5,67	5,65
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,34	3,31	3,28	3,23	3,20	3,15	3,12	3,08	3,05	3,03	3,00	2,98	2,96	2,94	2,93
	11,26	8,65	7,59	7,01	6,63	6,37	6,19	6,03	5,91	5,82	5,74	5,67	5,56	5,48	5,36	5,28	5,20	5,11	5,06	5,00	4,96	4,91	4,88	4,86
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,13	3,10	3,07	3,02	2,98	2,93	2,90	2,86	2,82	2,80	2,77	2,76	2,73	2,72	2,71
	10,56	8,02	6,99	6,42	6,06	5,80	5,62	5,47	5,35	5,26	5,18	5,11	5,00	4,92	4,80	4,73	4,61	4,56	4,51	4,45	4,41	4,36	4,33	4,34

V_2 = dk penyebut	V_1 = dk pembilang																					
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,97	2,94	2,91	2,86	2,82	2,77	2,74	2,70	2,67	2,64	2,61	2,59	2,56	2,55	2,54
	10,04	7,56	6,55	5,99	5,64	5,39	5,21	5,06	4,95	4,85	4,78	4,71	4,60	4,52	4,41	4,33	4,25	4,17	4,12	4,05	4,01	3,96	3,93	3,91
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,86	2,82	2,79	2,74	2,70	2,65	2,61	2,57	2,53	2,50	2,47	2,45	2,42	2,41	2,40
	9,65	7,20	6,22	5,67	5,32	5,07	4,88	4,74	4,63	4,54	4,46	4,40	4,29	4,21	4,10	4,02	3,94	3,86	3,80	3,74	3,70	3,66	3,62	3,60
12	4,75	3,88	3,49	3,26	3,11	3,00	2,92	2,85	2,80	2,76	2,72	2,69	2,64	2,60	2,54	2,50	2,46	2,42	2,40	2,36	2,35	2,32	2,31	2,30
	9,33	6,93	5,95	5,41	5,06	4,82	4,65	4,50	4,39	4,30	4,22	4,16	4,05	3,98	3,86	3,78	3,70	3,61	3,56	3,49	3,46	3,41	3,38	3,36
13	4,67	3,80	3,41	3,18	3,02	2,92	2,84	2,77	2,72	2,67	2,63	2,60	2,55	2,51	2,46	2,42	2,38	2,34	2,32	2,28	2,26	2,24	2,22	2,21
	9,07	6,70	5,74	5,20	4,86	4,62	4,44	4,30	4,19	4,10	4,02	3,96	3,85	3,78	3,67	3,59	3,51	3,42	3,37	3,30	3,27	3,21	3,18	3,16
14	4,60	3,74	3,34	3,11	2,96	2,85	2,77	2,70	2,65	2,60	2,56	2,53	2,48	2,44	2,39	2,35	2,31	2,27	2,24	2,21	2,19	2,16	2,14	2,13
	8,86	6,51	5,56	5,03	4,69	4,46	4,28	4,14	4,03	3,94	3,86	3,80	3,70	3,62	3,51	3,43	3,34	3,26	3,21	3,14	3,11	3,06	3,02	3,00
15	4,54	3,68	3,29	3,06	2,90	2,79	2,70	2,64	2,59	2,55	2,51	2,48	2,43	2,39	2,33	2,29	2,25	2,21	2,18	2,15	2,12	2,10	2,08	2,07
	8,68	6,36	5,42	4,89	4,56	4,32	4,14	4,00	3,89	3,80	3,73	3,67	3,56	3,48	3,36	3,29	3,20	3,12	3,07	3,00	2,97	2,92	2,89	2,87
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,45	2,42	2,37	2,33	2,28	2,24	2,20	2,16	2,13	2,09	2,07	2,04	2,02	2,01
	8,53	6,23	5,29	4,77	4,44	4,20	4,03	3,89	3,78	3,69	3,61	3,55	3,45	3,37	3,25	3,18	3,10	3,01	2,96	2,89	2,86	2,80	2,77	2,75
17	4,45	3,59	3,20	2,96	2,81	2,70	2,62	2,55	2,50	2,45	2,41	2,38	2,33	2,29	2,23	2,19	2,15	2,11	2,08	2,04	2,02	1,99	1,97	1,96
	8,40	6,11	5,18	4,67	4,34	4,10	3,93	3,79	3,68	3,59	3,52	3,45	3,35	3,27	3,16	3,08	3,00	2,92	2,86	2,79	2,76	2,70	2,67	2,65
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,37	2,34	2,29	2,25	2,19	2,15	2,11	2,07	2,04	2,00	1,98	1,95	1,93	1,92
	8,28	6,01	5,09	4,58	4,25	4,01	3,85	3,71	3,60	3,51	3,44	3,37	3,27	3,19	3,07	3,00	2,91	2,83	2,78	2,71	2,68	2,62	2,59	2,57
19	4,38	3,52	3,13	2,90	2,74	2,63	2,55	2,48	2,43	2,38	2,34	2,31	2,26	2,21	2,15	2,11	2,07	2,02	2,00	1,96	1,94	1,91	1,90	1,88
	8,18	5,93	5,01	4,50	4,17	3,94	3,77	3,63	3,52	3,43	3,36	3,30	3,19	3,12	3,00	2,92	2,84	2,76	2,70	2,63	2,60	2,54	2,51	2,49
20	4,35	3,49	3,10	2,87	2,71	2,60	2,52	2,45	2,40	2,35	2,31	2,26	2,23	2,18	2,12	2,08	2,04	1,99	1,96	1,92	1,90	1,87	1,85	1,84
	8,10	5,85	4,94	4,43	4,10	3,87	3,71	3,56	3,45	3,37	3,30	3,23	3,13	3,05	2,94	2,86	2,77	2,69	2,63	2,56	2,53	2,47	2,44	2,42
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,28	2,25	2,20	2,15	2,09	2,05	2,00	1,96	1,93	1,89	1,87	1,84	1,82	1,81
	8,02	5,78	4,87	4,37	4,04	3,81	3,65	3,51	3,40	3,31	3,24	3,17	3,07	2,99	2,88	2,80	2,72	2,63	2,58	2,51	2,47	2,42	2,38	2,36
22	4,30	3,44	3,05	2,82	2,66	2,55	2,47	2,40	2,35	2,30	2,26	2,23	2,18	2,13	2,07	2,03	1,98	1,93	1,91	1,87	1,84	1,81	1,80	1,78
	7,94	5,72	4,82	4,31	3,99	3,76	3,59	3,45	3,35	3,26	3,18	3,12	3,02	2,94	2,83	2,75	2,67	2,58	2,53	2,46	2,42	2,37	2,33	2,31
23	4,28	3,42	3,03	2,80	2,64	2,53	2,45	2,38	2,32	2,28	2,24	2,20	2,14	2,10	2,04	2,00	1,96	1,91	1,88	1,84	1,82	1,79	1,77	1,76
	7,88	5,66	4,76	4,26	3,94	3,71	3,54	3,41	3,30	3,21	3,14	3,07	2,97	2,89	2,78	2,70	2,62	2,53	2,48	2,41	2,37	2,32	2,28	2,26

LAMPIRAN K

HASIL UJI STATISTIK KEKERASAN TABLET ANTAR FORMULA TABLET HISAP EKSTRAK DAUN SIRIH MERAH

F	N	Mean	Std. Deviation	Std. Error	95 % Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
I	3	8,8367	,24214	,13980	8,2351	9,4382	8,56	9,01
II	3	12,2400	1,03523	,59769	9,6683	14,8117	11,15	13,21
III	3	12,9000	,90205	,52080	10,6592	15,1408	12,07	13,86
IV	3	10,4200	2,27493	1,31343	4,7688	16,0712	8,43	12,90
Total	12	11,0992	2,01388	,58136	9,8196	12,3787	8,43	13,86

ANOVA

KEKERASAN

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	30,374	3	10,125	5,689	,022
Within Groups	14,239	8	1,780		
Total	44,613	11			

Hipotesa pengujian :

F hitung > F tabel (0,05) sehingga H ditolak dan ada perbedaan yang bermakna antar formula.

KEKERASAN

HSD

(I) F	(J) F	Mean Difference (I-J)	Std. Error	Sig.	95 % Confidence Interval Lower Bound	Upper Bound
I	II	-3,40333*	1,08929	.014	-5,9152	-,8914
	III	-4,06333*	1,08929	.006	-6,5752	-1,5514
	IV	-1,58333	1,08929	.184	-4,0952	,9286
II	I	3,40333*	1,08929	.014	,8914	5,9152
	III	-,66000	1,08929	.561	-3,1719	1,8519
	IV	1,82000	1,08929	.133	-,6919	4,3319
III	I	4,06333*	1,08929	.006	1,5514	6,5752
	II	,66000	1,08929	.561	-1,8519	3,1719
	IV	2,48000	1,08929	.052	-,0319	4,9919
IV	I	1,58333	1,08929	.184	-,9286	4,0952
	II	-1,82000	1,08929	.133	-4,3319	,6919
	III	-2,48000	1,08929	.052	-4,9919	,0319

Keterangan :
Symbol * : Perbedaannya signifikan, karena selisih > HSD (5%)
Tanpa symbol : Perbedaannya tidak signifikan, karena selisih < HSD (5%)

LAMPIRAN L

HASIL UJI STATISTIK KERAPUHAN TABLET ANTAR FORMULA TABLET HISAP EKSTRAK DAUN SIRIH MERAH

F	N	Mean	Std. Deviation	Std. Error	95 % Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
I	3	,184533	,0025929	,0014970	,178092	,190975	,1827	,1875
II	3	,185633	,0008327	,0004807	,183565	,187702	,1847	,1863
III	3	,162667	,0384230	,0221835	,067219	,258115	,1183	,1850
IV	3	,123433	,0002082	,0001202	,122916	,123950	,1232	,1236
Total	12	,164067	,0310112	,0089522	,144363	,183770	,1183	,1875

ANOVA

KERAPUHAN

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.008	3	.003	6,839	.013
Within Groups	.003	8	.000		
Total	.011	11			

Hipotesa pengujian :

F hitung > F tabel (0,05) sehingga H ditolak dan ada perbedaan yang bermakna antar formula.

KERAPUHAN

HSD

(I) F	(J) F	Mean Difference (I-J)	Std. Error	Sig.	95 % Confidence Interval	
					Lower Bound	Upper Bound
I	II	-,0011000	,0157257	.946	-,037363	,035163
	III	,0218667	,0157257	.202	-,014397	,058130
	IV	,0611000*	,0157257	.005	,024837	,097363
II	I	,0011000	,0157257	.946	-,035163	,037363
	III	,0229667	,0157257	.182	-,013297	,059230
	IV	,0622000*	,0157257	.004	,025937	,098463
III	I	-,0218667	,0157257	.202	-,058130	,014397
	II	-,0229667	,0157257	.182	-,059230	,013297
	IV	,0392333*	,0157257	.037	,002970	,075497
IV	I	-,0611000*	,0157257	.005	-,097363	-,024837
	II	-,0622000*	,0157257	.004	-,098463	-,025937
	III	-,0392333*	,0157257	.037	-,075497	-,002970

Keterangan :
Symbol * : Perbedaannya signifikan, karena selisih > HSD (5%)
Tanpa symbol : Perbedaannya tidak signifikan, karena selisih < HSD (5%)

LAMPIRAN M

HASIL UJI STATISTIK WAKTU HANCUR TABLET ANTAR FORMULA TABLET HISAP EKSTRAK DAUN SIRIH MERAH

F	N	Mean	Std. Deviation	Std. Error	95 % Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
I	3	21,7900	,54617	,31533	20,4332	23,1468	21,16	22,13
II	3	20,9177	,64826	,37428	19,3073	22,5280	20,17	21,32
III	3	28,1833	,05508	,03180	28,0465	28,3201	28,13	28,24
IV	3	25,6700	,37041	,21385	24,7499	26,5901	25,39	26,09
Total	12	24,1402	3,09697	,89402	22,1725	26,1080	20,17	28,24

ANOVA

WAKTU HANCUR

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	103.786	3	34.595	161,137	.000
Within Groups	1.718	8	.215		
Total		11			

Hipotesa pengujian :

F hitung > F tabel (0,05) sehingga H ditolak dan ada perbedaan yang bermakna antar formula.

WAKTU HANCUR

HSD

(I) F	(J) F	Mean Difference (I-J)	Std. Error	Sig.	95 % Confidence Interval Lower Bound	Upper Bound
I	II	,87233	,37833	.050	-,0001	1,7448
	III	-6,39333*	,37833	.000	-7,2658	-5,5209
	IV	-3,88000*	,37833	.000	-4,7524	-3,0076
II	I	-,87233	,37833	.050	-1,7448	,0001
	III	-7,26567*	,37833	.000	-8,1381	-6,3932
	IV	-4,75233*	,37833	.000	-5,6248	-3,8799
III	I	6,39333*	,37833	.000	5,5209	7,2658
	II	7,26567*	,37833	.000	6,3932	8,1381
	IV	2,51333*	,37833	.000	1,6409	3,3858
IV	I	3,88000*	,37833	.000	3,0076	4,7524
	II	4,75233*	,37833	.000	3,8799	5,6248
	III	-2,51333*	,37833	.000	-3,3858	-1,6409

Keterangan :
Symbol * : Perbedaannya signifikan, karena selisih > HSD (5%)
Tanpa symbol : Perbedaannya tidak signifikan, karena selisih < HSD (5%)

LAMPIRAN N

HASIL ANOVA UJI KEKERASAN PADA PROGRAM DESIGN EXPERT

Response 1 kekerasan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	pvalue Prob>F
Model	30.37	3	10.12	5.69	0.0220 significant
A-macam pengikat	3.77	1	3.77	2.12	0.1834
B-macam pengisi	0.64	6	0.64	0.36	0.5655
AB	25.96	1	25.96	14.59	0.0051
Pure Error	14.24	8	1.78		
Cor Total	44.61	11			

The Model F-value of 5.69 implies the model is significant. There is only a 2.20% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant. In this case AB are significant model terms. Values greater than 0.1000 indicate the model terms are not significant. If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Std. Dev.	1.33	R-Squared	0.6808
Mean	11.10	Adj R-Squared	0.5612
C.V. %	12.02	Pred R-Squared	0.2819
PRESS	32.04	Adeq Precision	5.275

The "Pred R-Squared" of 0.2819 is not as close to the "Adj R-Squared" of 0.5612
"Adeq Precision" measures the signal to noise ratio. A ratio greater than ratio of 5.275 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	11.10	1	0.39	10.21	11.99	
A-macam pengikat	0.56	1	0.39	-0.33	1.45	1.00
B-macam pengisi	0.23	1	0.39	-0.66	1.12	1.00
AB	-1.47	1	0.39	-2.36	-0.58	1.00

Final Equation in Terms of Coded Factors:

kekerasan =
+11.10
+0.56 * A
+0.23 * B
-1.47 * A * B

Final Equation in Terms of Actual Factors:

kekerasan =
+11.09917
+0.56083 * macam pengikat
+0.23083 * macam pengisi
-1.47083 * macam pengikat * macam pengisi

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node. In the Diagnostics Node, Select Case Statistics from the View Menu Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

1) Normal probability plot of the studentized residuals to check for normality of
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon

LAMPIRAN O

HASIL ANOVA UJI KERAPUHAN PADA PROGRAM DESIGN EXPERT

Response 2 kerapuhan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	7.611E-003	3	2.537E-003	6.84	0.0134 significant
A-macam pengikat	*5.300E-003*	1	*5.300E-003*	*14.29*	*0.0054*
B-macam pengisi	*1.091E-003*	1	*1.091E-003*	*2.94*	*0.1248*
AB	*1.220E-003*	1	*1.220E-003*	*3.29*	*0.1073*
Pure Error	2.968E-003	8	3.709E-004		
Cor total	0.011	11			

The Model F-value of 6.84 implies the model is significant. There is only a 1.34% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant. In this case A are significant model terms. Values greater than 0.1000 indicate the model terms are not significant.

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Std. Dev.	0.019	R-Squared	0.7195
Mean	0.16	Adj R-Squared	0.6143
C.V. %	11.74	Pred R-Squared	0.3688
PRESS	6.677E-003	Adeq Precision	5.594

The "Pred R-Squared" of 0.3688 is not as close to the "Adj R-Squared" of 0.6143 as one might normally expect. This may indicate a large block effect or a possible problem with your model and/or data. Things to consider are model reduction, response tranformation, outliers, etc. "Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 5.594 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	0.16	1	5.560E-003	0.15	0.18	
A-macam pengikat	-0.021	1	5.560E-003	-0.034	-8.196E-003	1.00
B-macam pengisi	-9.533E-003	1	5.560E-003	-0.022	3.288E-003	1.00
AB	-0.010	1	5.560E-003	-0.023	2.738E-003	1.00

Final Equation in Terms of Coded Factors:

kerapuhan =

+0.16
-0.021 * A
-9.533E-003 * B
-0.010 * A * B

Final Equation in Terms of Actual Factors:

Kerapuhan =

+0.16407
-0.021017 * macam pengikat
-9.53333E-003 * macam pengisi
-0.010083 * macam pengikat * macam pengisi

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node. In the Diagnostics Node, Select Case Statistics from the View Menu. Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

1) Normal probability plot of the studentized residuals to check for normality of residuals.
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN P

HASIL ANOVA UJI WAKTU HANCUR PADA PROGRAM DESIGN EXPERT

Response 3 waktu hancur
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	103.81	3	34.60	161.40	< 0.0001 significant
A-macam pengikat	93.19	1	93.19	434.65	< 0.0001
B-macam pengisi	8.60	1	8.60	40.12	0.0002
AB	2.02	1	2.02	9.41	0.0154
Pure Error	1.72	8	0.21		
Cor Total	105.52	11			

The Model F-value of 161.40 implies the model is significant. There is only a 0.01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant. In this case A, B, AB are significant model terms.Values greater than 0.1000 indicate the model terms are not significant. If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Std. Dev.	0.46	R-Squared	0.9837
Mean	24.14	Adj R-Squared	0.9777
C.V. %	1.92	Pred R-Squared	0.9634
PRESS	3.86	Adeq Precision	27.183

The "Pred R-Squared" of 0.9634 is in reasonable agreement with the "Adj R-Squared" of 0.9777. "Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 27.183 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	24.14	1	0.13	23.83	24.45	
A-macam pengikat	2.79	1	0.13	2.48	3.09	1.00
B-macam pengisi	-0.85	1	0.13	-1.15	-0.54	1.00
AB	-0.41	1	0.13	-0.72	-0.10	1.00

Final Equation in Terms of Coded Factors:

waktu hancur =
+24.14
+2.79 * A
-0.85 * B
-0.41 * A * B

Final Equation in Terms of Actual Factors:

waktu hancur =
+24.14000
+2.78667 * macam pengikat
-0.84667 * macam pengisi
-0.41000 * macam pengikat * macam pengisi

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node. In the Diagnostics Node, Select Case Statistics from the View Menu. Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

1) Normal probability plot of the studentized residuals to check for normality of residuals.
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN Q

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI KEKERASAN

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
PERCOBAAN	110975	4	183983	,91991
TEORITIS	111000	4	183572	,91786

Paired Samples Correlations

	N	Correlation	Sig.
PERCOBAAN & TEORITIS	4	1.000	.000

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
				95 % Confidence Interval for Mean				
	Mean	Std. Deviation	Std. Error	Lower	Upper			
PERCOBAAN TEORITIS	-,00250	,00500	,00250	-,01046	,00546	-1.000	3	0.391

Hipotesa Pengujian :

T hitung (-1) < $T_{0,025\ (3)}$ (3,182) sehingga H diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN R

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI KERAPUHAN

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
PERCOBAAN	,164025[a]	4	,0290811	,0145405
TEORITIS	,164025[a]	4	,0290811	,0145405

Hipotesa pengujian :
Koefisien korelasi dan nilai t tidak dapat dihitung karena standard error dari perbedaannya adalah 0 yang tidak ada perbedaan antara formula.

LAMPIRAN S

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI WAKTU HANCUR

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
PERCOBAAN	24,1400[a]	4	3,40092	1,70046
TEORITIS	24,1400[a]	4	3,40092	1,70046

Hipotesa pengujian :
Koefisien korelasi dan nilai t tidak dapat dihitung karena standard error dari perbedaannya adalah 0 yang tidak ada perbedaan antara formula.