

LAMPIRAN

Lampiran 1. Certificate of Analysis (CoA)



PT. Darjeeling Sembrani Aroma

Wisma Monex Lt 9, Jl. Asia Afrika No. 133-137
Bandung, 40112
Tel. 022-4235600

Certificate of Analysis

Product name: Kaffir lime essential oil	CAS No: 91771-50-5
Lot number: DA/0051K	Botanical name: Citrus hystrix
Mfg. Date: 26/03/2020	Production method: Steam distillation
Best before: 26/09/2022	Origin: Indonesia

Storage conditions: Store in a cool, dry place in tightly sealed containers.

Parameter	Specification	Result	Method
Appearance	Free flowing liquid	Complies	Visual
Colour	Yellow to transparent	Complies	Visual
Odour	Characteristic kaffir lime aroma	Complies	Organoleptic
Specific gravity at 25°C	0.860 to 0.880	0.871	FCC
Refractive index at 20°C	1,457 to 1,481	1.469	FCC

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Approved by
Manager - QA

Lampiran 2. Hasil Karakterisasi Minyak Atsiri Daun Jeruk Purut (*Citrus hystrix* DC.)



GC Analysis

Product name: Kaffir lime essential oil CAS No: 91771-50-5
 Lot number: DA/0051K Botanical name: Citrus hystrix
 Mfg. Date: 26/03/2020 Production method: Steam distillation
 Best before: 26/09/2022 Origin: Indonesia

Key constituents in this batch of essential oil %	Key constituents in this batch of essential oil %
Citronellal	64.08%
Citronellol	6.89%
Linalool	5.81%
2,6-Dimethyl-2,6-octadiene	4.73%
Sabinene	3.56%
Caryophyllene	1.70%
Ocimene	1.10%

a. Organoleptik

Warna = kuning transparan

Bau = aroma khas jeruk purut

Konsistensi = liquid/cair

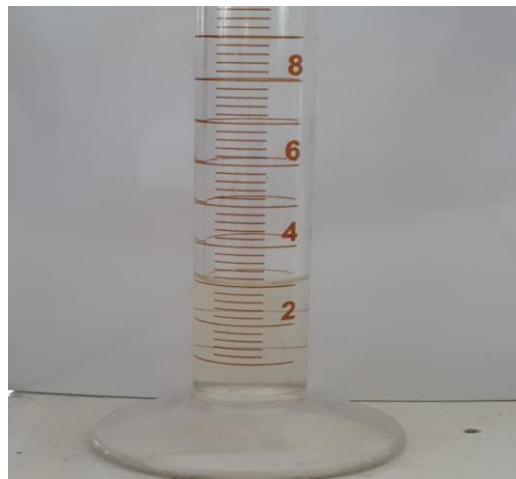


b. Kelarutan dalam etanol

Larut dalam etanol 90% 1:2 volume.

1 ml minyak, dalam 1 ml etanol 90% (belum terlarut sebagian)

1 ml minyak, dalam 2 ml etanol 90% (terlarut)



c. Penetapan bobot jenis (Bj)

Pikno kosong (g)	Pikno + air (g)	pikno + minyak (g)	Air (g)	Minyak (g)	Bj
32,744	82,213	75,257	49,469	42,786	0,865

Bobot piknometer kosong = 32,744 g

Bobot piknometer + air = 82,213 g

Bobot piknometer + minyak = 75,257 g

Bobot air = 49,469 g

Bobot minyak = 42,786 g

Bj minyak = $42,786/49,469 = 0,865$



d. Indeks bias

Indeks bias dengan refraktometer 1,451



Lampiran 3. Gambar pengujian mutu fisik emulgel minyak atsiri daun jeruk purut (*Citrus hystrix* DC.)

a. Gambar formula



b.



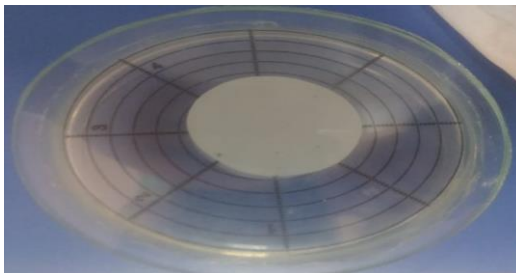
c. Viskositas



d. Uji pH



Daya sebar

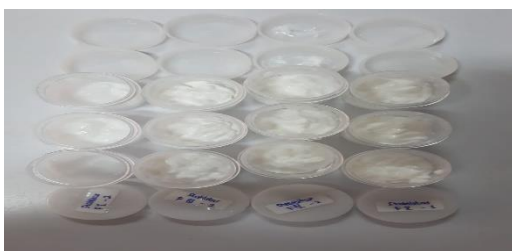


f. Daya lekat



g. Stabilitas

Sebelum



Sesudah



**Lampiran 4. Hasil Uji Mutu Fisik Emulgel Minyak Atsiri Daun Jeruk Purut
(*Citrus hytrix* DC.)**

Viskositas hari ke 1 - 21

formula	Hari ke 1					Hari ke 7				
	1	2	3	Rata-rata	SD	1	2	3	Rata-rata	SD
Basis	230	240	230	233,33	5,77	230	230	230	230,00	0,00
F1	180	190	200	190,00	10,00	180	190	190	186,77	5,77
F2	200	200	210	203,33	5,77	200	200	200	200,00	0,00
F3	230	210	220	220,00	10,00	220	220	210	216,67	5,77

formula	Hari ke 14					Hari ke 21				
	1	2	3	Rata-rata	SD	1	2	3	Rata-rata	SD
Basis	230	230	220	226,63	5,77	230	220	220	223,33	0,00
F1	180	190	190	186,77	5,77	190	180	190	186,77	5,77
F2	190	190	190	190,00	0,00	190	200	200	196,67	5,77
F3	220	220	210	216,67	5,77	220	210	220	216,67	5,77

pH hari ke 1 – 21

formula	Hari ke 1					Hari ke 7				
	1	2	3	Rata-rata	SD	1	2	3	Rata-rata	SD
Basis	5,10	4,85	5,20	5,05	0,18	5,11	4,98	5,01	5,03	0,07
F1	4,55	4,60	4,50	4,55	0,05	4,48	4,50	4,49	4,49	0,01
F2	4,38	4,42	4,35	4,38	0,04	4,38	4,35	4,37	4,37	0,02
F3	4,21	4,30	4,18	4,23	0,06	4,21	4,21	4,20	4,21	0,01

formula	Hari ke 14					Hari ke 21				
	1	2	3	Rata-rata	SD	1	2	3	Rata-rata	SD
Basis	5,08	4,98	5,00	5,02	0,05	5,10	4,97	4,86	4,98	0,12
F1	4,45	4,51	4,48	4,48	0,03	4,50	4,55	4,60	4,55	0,05
F2	4,34	4,33	4,36	4,34	0,02	4,41	4,35	4,37	4,38	0,03
F3	4,18	4,19	4,19	4,19	0,01	4,23	4,25	4,30	4,26	0,04

Daya sebar formula basis hari ke 1 – 21

Beban	Hari ke 1					Hari ke 7				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,23	2,28	2,25	2,25	0,03	2,83	2,78	2,83	2,81	0,03
50 g	2,63	2,63	2,58	2,61	0,03	3,15	3,10	3,05	3,10	0,05
100 g	3,03	3,08	2,95	3,02	0,07	3,33	3,25	3,23	3,27	0,05
150 g	3,23	3,28	3,30	3,27	0,04	3,45	3,43	3,45	3,44	0,01

Beban	Hari ke 14					Hari ke 21				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	3,03	2,95	3,03	3,00	0,05	3,03	2,95	3,03	3,00	0,05
50 g	3,30	3,10	3,15	3,18	0,10	3,30	3,10	3,15	3,18	0,10
100 g	3,53	3,38	3,45	3,45	0,08	3,53	3,38	3,45	3,45	0,08
150 g	3,45	3,60	3,60	3,55	0,09	3,56	3,58	3,56	3,57	0,01

Daya sebar formula 1 (15 %) hari ke 1 – 21

Beban	Hari ke 1					Hari ke 7				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,75	2,78	2,90	2,81	0,08	2,90	2,95	2,88	2,91	0,04
50 g	3,05	3,10	3,23	3,13	0,09	3,00	3,18	3,18	3,12	0,10
100 g	3,33	3,43	3,53	3,43	0,10	3,48	3,48	3,40	3,45	0,05
150 g	3,65	3,70	3,68	3,68	0,03	3,75	3,70	3,75	3,73	0,03

Beban	Hari ke 14					Hari ke 21				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,95	2,90	2,95	2,93	0,03	3,30	3,23	3,23	3,25	0,04
50 g	3,15	3,15	3,28	3,19	0,08	3,65	3,53	3,58	3,59	0,06
100 g	3,48	3,33	3,50	3,44	0,09	3,98	3,85	3,88	3,90	0,07
150 g	3,85	3,67	3,73	3,75	0,09	4,10	4,05	4,03	4,06	0,04

Daya sebar formula 2 (20 %) hari ke 1 – 21

Beban	Hari ke 1					Hari ke 7				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,60	2,63	2,68	2,64	0,04	2,98	3,13	3,03	3,05	0,08
50 g	2,88	2,93	2,95	2,92	0,04	3,38	3,35	3,33	3,35	0,03
100 g	3,23	3,25	3,28	3,25	0,03	3,55	3,58	3,60	3,58	0,03
150 g	3,55	3,60	3,60	3,58	0,03	3,68	3,60	3,60	3,63	0,05

Beban	Hari ke 14					Hari ke 21				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	3,18	3,13	3,20	3,17	0,04	3,58	3,48	3,50	3,52	0,05
50 g	3,33	3,33	3,38	3,35	0,03	3,75	3,75	3,70	3,73	0,03
100 g	3,48	3,50	3,55	3,51	0,04	3,98	3,95	3,88	3,94	0,05
150 g	3,63	3,60	3,65	3,63	0,03	4,00	4,06	4,00	4,02	0,03

Daya sebar formula 3 (25 %) hari ke 1 – 21

Beban	Hari ke 1					Hari ke 7				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,68	2,68	2,73	2,70	0,03	2,95	2,93	2,93	2,94	0,01
50 g	3,05	3,00	3,03	3,03	0,03	3,18	3,13	3,13	3,15	0,03
100 g	3,25	3,28	3,40	3,31	0,08	3,45	3,43	3,43	3,44	0,01
150 g	3,35	3,43	3,46	3,41	0,06	3,58	3,60	3,50	3,56	0,05

Beban	Hari ke 14					Hari ke 21				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
Kaca atas	2,93	2,93	2,90	2,92	0,02	3,03	3,20	3,05	3,09	0,09
50 g	3,15	3,23	3,08	3,15	0,08	3,23	3,43	3,28	3,31	0,10
100 g	3,43	3,45	3,30	3,39	0,08	3,45	3,70	3,50	3,55	0,13
150 g	3,58	3,56	3,53	3,56	0,03	3,63	3,90	3,78	3,77	0,14

Daya lekat hari ke 1 – 21

formula	Waktu lekat (detik)									
	Hari ke 1					Hari ke 7				
	1	2	3	Rata-rata	SD	1	2	3	rata-rata	SD
Basis	1,50	1,00	1,30	1,27	0,25	1,30	1,40	1,40	1,37	0,06
F1	1,70	1,90	1,80	1,80	0,10	1,90	2,00	2,00	1,97	0,06
F2	2,00	2,00	1,90	1,97	0,06	1,70	1,90	1,80	1,80	0,10
F3	2,10	2,00	2,30	2,13	0,15	2,00	1,90	1,90	1,93	0,06

formula	Waktu lekat (detik)									
	Hari ke 14					Hari ke 21				
	1	2	3	rata-rata	SD	1	2	3	rata-rata	SD
basis	1,00	1,10	1,20	1,10	0,10	1,50	1,30	1,30	1,37	0,12
F1	1,70	1,70	1,80	1,73	0,06	1,80	1,70	2,00	1,83	0,15
F2	1,90	1,80	1,90	1,87	0,06	2,00	2,20	1,70	1,97	0,25
F3	1,60	1,70	1,80	1,70	0,10	1,90	2,00	2,30	2,07	0,21

Stabilitas cycling test

Formul a	Viskositas (dpas)									
	Sebelum					Sesudah				
	1	2	3	rata-rata	sd	1	2	3	rata-rata	Sd
Basis	23	24	23	233,33	5,77	23	22	22	223,33	5,77
	0	0	0			0	0	0		
F1	18	19	20	190,00	10,0	18	19	19	186,67	5,77
	0	0	0		0	0	0	0		
F2	20	20	21	203,33	5,77	19	19	20	193,33	5,77
	0	0	0			0	0	0		
F3	23	21	22	220,00	10,0	21	22	21	213,33	5,77
	0	0	0		0	0	0	0		

Formula	pH									
	Sebelum					Sesudah				
	1	2	3	rata-rata	sd	1	2	3	rata-rata	Sd
Basis	5,10	4,85	5,20	5,05	0,18	5,23	5,20	5,25	5,23	0,03
F1	4,55	4,60	4,50	4,55	0,05	3,61	3,65	3,60	3,62	0,03
F2	4,38	4,42	4,35	4,38	0,04	3,39	3,37	3,42	3,39	0,03
F3	4,21	4,30	4,18	4,23	0,06	3,34	3,30	3,00	3,21	0,19

Lampiran 5. Uji nilai SPF
Penentuan CF (factor koreksi)
 Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF
290	0.0150	0.4026	0.00603900	0.41032983	5000	2051.649	0.01462238
295	0.0817	0.4132	0.03375844				
300	0.2874	0.4170	0.11984580				
305	0.3278	0.4164	0.13649592				
310	0.1864	0.4120	0.07679680				
315	0.0839	0.3773	0.03165547				
320	0.0180	0.3188	0.00573840				

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF
290	0.0150	0.4019	0.00602850	0.40991009	5000	2049.55	0.0146374
295	0.0817	0.4127	0.03371759				
300	0.2874	0.4163	0.11964462				
305	0.3278	0.4160	0.13636480				
310	0.1864	0.4118	0.07675952				
315	0.0839	0.3774	0.03166386				
320	0.0180	0.3184	0.00573120				

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF
290	0.0150	0.4025	0.00603750	0.41071373	5000	2053.569	0.0146087
295	0.0817	0.4136	0.03379112				
300	0.2874	0.4173	0.11993202				
305	0.3278	0.4169	0.13665982				
310	0.1864	0.4122	0.07683408				
315	0.0839	0.3781	0.03172259				
320	0.0180	0.3187	0.00573660				

Rata-rata: 0,0146

Nilai SPF minyak 15%

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.7098	0.01064700	0.36563920	1000	365.6392	0.0146	5.33833232
295	0.0817	0.5346	0.04367682					
300	0.2874	0.4227	0.12148398					
305	0.3278	0.3469	0.11371382					
310	0.1864	0.2903	0.05411192					
315	0.0839	0.2274	0.01907886					
320	0.0180	0.1626	0.00292680					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.7186	0.01077900	0.37219917	1000	372.1992	0.0146	5.43410788
295	0.0817	0.5424	0.04431408					
300	0.2874	0.4301	0.12361074					
305	0.3278	0.3533	0.11581174					
310	0.1864	0.2961	0.05519304					
315	0.0839	0.2323	0.01948997					
320	0.0180	0.1667	0.00300060					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.7220	0.01083000	0.37391845	1000	373.9185	0.0146	5.45920937
295	0.0817	0.5448	0.04451016					
300	0.2874	0.4317	0.12407058					
305	0.3278	0.3551	0.11640178					
310	0.1864	0.2977	0.05549128					
315	0.0839	0.2335	0.01959065					
320	0.0180	0.1680	0.00302400					

Rata-rata: 5,41054986

Nilai SPF minyak 20%

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.5817	0.00872550	0.31907115	2000	638.1423	0.0146	9.31687758
295	0.0817	0.4529	0.03700193					
300	0.2874	0.3688	0.10599312					
305	0.3278	0.3055	0.10014290					
310	0.1864	0.2567	0.04784888					
315	0.0839	0.1998	0.01676322					
320	0.0180	0.1442	0.00259560					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.5856	0.00878400	0.32207680	2000	644.1536	0.0146	9.40464256
295	0.0817	0.4569	0.03732873					
300	0.2874	0.3718	0.10685532					
305	0.3278	0.3083	0.10106074					
310	0.1864	0.2597	0.04840808					
315	0.0839	0.2027	0.01700653					
320	0.0180	0.1463	0.00263340					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.5865	0.00879750	0.32160256	2000	643.2051	0.0146	9.39079475
295	0.0817	0.4558	0.03723886					
300	0.2874	0.3713	0.10671162					
305	0.3278	0.3078	0.10089684					
310	0.1864	0.2591	0.04829624					
315	0.0839	0.2030	0.01703170					
320	0.0180	0.1461	0.00262980					

Rata-rata: 9,37077163

Nilai SPF minyak 25%

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3776	0.00566400	0.40266993	5000	2013.35	0.0146	29.39490489
295	0.0817	0.3936	0.03215712					
300	0.2874	0.4032	0.11587968					
305	0.3278	0.4094	0.13420132					
310	0.1864	0.4118	0.07675952					
315	0.0839	0.3831	0.03214209					
320	0.0180	0.3259	0.00586620					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3776	0.00566400	0.40323627	5000	2016.181	0.0146	29.43624771
295	0.0817	0.3940	0.03218980					
300	0.2874	0.4036	0.11599464					
305	0.3278	0.4099	0.13436522					
310	0.1864	0.4129	0.07696456					
315	0.0839	0.3835	0.03217565					
320	0.0180	0.3268	0.00588240					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3775	0.00566250	0.40305435	5000	2015.272	0.0146	29.42296755
295	0.0817	0.3939	0.03218163					
300	0.2874	0.4034	0.11593716					
305	0.3278	0.4097	0.13429966					
310	0.1864	0.4128	0.07694592					
315	0.0839	0.3832	0.03215048					
320	0.0180	0.3265	0.00587700					

Rata-rata: 29,41804005

Nilai SPF Basis Emulgel

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2996	0.00449400	0.30847930	100	30.84793	0.0146	0.45037978
295	0.0817	0.3060	0.02500020					
300	0.2874	0.3102	0.08915148					
305	0.3278	0.3122	0.10233916					
310	0.1864	0.3121	0.05817544					
315	0.0839	0.2938	0.02464982					
320	0.0180	0.2594	0.00466920					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2984	0.00447600	0.30664455	100	30.66446	0.0146	0.44770104
295	0.0817	0.3044	0.02486948					
300	0.2874	0.3086	0.08869164					
305	0.3278	0.3102	0.10168356					
310	0.1864	0.3101	0.05780264					
315	0.0839	0.2917	0.02447363					
320	0.0180	0.2582	0.00464760					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3013	0.00451950	0.30909601	100	30.9096	0.0146	0.45128017
295	0.0817	0.3072	0.02509824					
300	0.2874	0.3111	0.08941014					
305	0.3278	0.3128	0.10253584					
310	0.1864	0.3122	0.05819408					
315	0.0839	0.2939	0.02465821					
320	0.0180	0.2600	0.00468000					

Rata-rata: 0,44978700

Uji Nilai SPF Emulgel 15%**Replikasi 1**

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2960	0.00444000	0.32208731	1000	322.0873	0.0146	4.70247473
295	0.0817	0.3129	0.02556393					
300	0.2874	0.3226	0.09271524					
305	0.3278	0.3277	0.10742006					
310	0.1864	0.3299	0.06149336					
315	0.0839	0.3068	0.02574052					
320	0.0180	0.2619	0.00471420					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3043	0.00456450	0.33175225	1000	331.7523	0.0146	4.84358285
295	0.0817	0.3222	0.02632374					
300	0.2874	0.3321	0.09544554					
305	0.3278	0.3376	0.11066528					
310	0.1864	0.3400	0.06337600					
315	0.0839	0.3161	0.02652079					
320	0.0180	0.2698	0.00485640					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3056	0.00458400	0.33268134	1000	332.6813	0.0146	4.85714756
295	0.0817	0.3232	0.02640544					
300	0.2874	0.3332	0.09576168					
305	0.3278	0.3385	0.11096030					
310	0.1864	0.3406	0.06348784					
315	0.0839	0.3172	0.02661308					
320	0.0180	0.2705	0.00486900					

Rata-rata: 4,80106838

Uji Nilai SPF Emulgel 20%**Replikasi 1**

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3250	0.00487500	0.35598570	1000	355.9857	0.0146	5.19739122
295	0.0817	0.3485	0.02847245					
300	0.2874	0.3589	0.10314786					
305	0.3278	0.3609	0.11830302					
310	0.1864	0.3629	0.06764456					
315	0.0839	0.3379	0.02834981					
320	0.0180	0.2885	0.00519300					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3250	0.00487500	0.36070104	1000	360.701	0.0146	5.26623518
295	0.0817	0.3462	0.02828454					
300	0.2874	0.3595	0.10332030					
305	0.3278	0.3681	0.12066318					
310	0.1864	0.3711	0.06917304					
315	0.0839	0.3462	0.02904618					
320	0.0180	0.2966	0.00533880					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3233	0.00484950	0.35786866	1000	357.8687	0.0146	5.22488244
295	0.0817	0.3441	0.02811297					
300	0.2874	0.3563	0.10240062					
305	0.3278	0.3643	0.11941754					
310	0.1864	0.3681	0.06861384					
315	0.0839	0.3481	0.02920559					
320	0.0180	0.2927	0.00526860					

Rata-rata: 5,22950295

Uji Nilai SPF Emulgel 25%**Replikasi 1**

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.5482	0.00822300	0.54972232	2000	1099.445	0.0146	16.05189174
295	0.0817	0.5570	0.04550690					
300	0.2874	0.5589	0.16062786					
305	0.3278	0.5570	0.18258460					
310	0.1864	0.5512	0.10274368					
315	0.0839	0.5052	0.04238628					
320	0.0180	0.4250	0.00765000					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.6067	0.00910050	0.61002168	2000	1220.043	0.0146	17.81263306
295	0.0817	0.6169	0.05040073					
300	0.2874	0.6194	0.17801556					
305	0.3278	0.6176	0.20244928					
310	0.1864	0.6132	0.11430048					
315	0.0839	0.5627	0.04721053					
320	0.0180	0.4747	0.00854460					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.5986	0.00897900	0.60200163	2000	1204.003	0.0146	17.57844760
295	0.0817	0.6090	0.04975530					
300	0.2874	0.6115	0.17574510					
305	0.3278	0.6097	0.19985966					
310	0.1864	0.6046	0.11269744					
315	0.0839	0.5547	0.04653933					
320	0.0180	0.4681	0.00842580					

Rata-rata: 17,14765747

Uji Nilai SPF Basis Sesudah Cycling Test

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2735	0.00410250	0.28441572	100	28.44157	0.0146	0.41524695
295	0.0817	0.2815	0.02299855					
300	0.2874	0.2856	0.08208144					
305	0.3278	0.2863	0.09384914					
310	0.1864	0.2870	0.05349680					
315	0.0839	0.2771	0.02324869					
320	0.0180	0.2577	0.00463860					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2639	0.00395850	0.27346766	100	27.34677	0.0146	0.39926278
295	0.0817	0.2712	0.02215704					
300	0.2874	0.2748	0.07897752					
305	0.3278	0.2750	0.09014500					
310	0.1864	0.2760	0.05144640					
315	0.0839	0.2660	0.02231740					
320	0.0180	0.2481	0.00446580					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2637	0.00395550	0.27250543	100	27.25054	0.0146	0.39785793
295	0.0817	0.2706	0.02210802					
300	0.2874	0.2741	0.07877634					
305	0.3278	0.2742	0.08988276					
310	0.1864	0.2746	0.05118544					
315	0.0839	0.2643	0.02217477					
320	0.0180	0.2457	0.00442260					

Rata-rata: 0,40412255

Uji Nilai SPF Emulgel 15% Sesudah Cycling Test

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2536	0.00380400	0.30843041	1000	308.4304	0.0146	4.50308399
295	0.0817	0.2863	0.02339071					
300	0.2874	0.3048	0.08759952					
305	0.3278	0.3156	0.10345368					
310	0.1864	0.3232	0.06024448					
315	0.0839	0.3018	0.02532102					
320	0.0180	0.2565	0.00461700					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2479	0.00371850	0.30433221	1000	304.3322	0.0146	4.44325027
295	0.0817	0.2816	0.02300672					
300	0.2874	0.3005	0.08636370					
305	0.3278	0.3116	0.10214248					
310	0.1864	0.3195	0.05955480					
315	0.0839	0.2979	0.02499381					
320	0.0180	0.2529	0.00455220					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2503	0.00375450	0.30626275	1000	306.2628	0.0146	4.47143615
295	0.0817	0.2837	0.02317829					
300	0.2874	0.3027	0.08699598					
305	0.3278	0.3135	0.10276530					
310	0.1864	0.3211	0.05985304					
315	0.0839	0.2996	0.02513644					
320	0.0180	0.2544	0.00457920					

Rata-rata: 4,47259013

Uji Nilai SPF Emulgel 20% Sesudah Cycling Test

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2604	0.00390600	0.32222465	1000	322.2247	0.0146	4.70447989
295	0.0817	0.2969	0.02425673					
300	0.2874	0.3178	0.09133572					
305	0.3278	0.3297	0.10807566					
310	0.1864	0.3387	0.06313368					
315	0.0839	0.3174	0.02662986					
320	0.0180	0.2715	0.00488700					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2617	0.00392550	0.32357940	1000	323.5794	0.0146	4.72425924
295	0.0817	0.2984	0.02437928					
300	0.2874	0.3192	0.09173808					
305	0.3278	0.3309	0.10846902					
310	0.1864	0.3404	0.06345056					
315	0.0839	0.3184	0.02671376					
320	0.0180	0.2724	0.00490320					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2639	0.00395850	0.32588346	1000	325.8835	0.0146	4.75789852
295	0.0817	0.3006	0.02455902					
300	0.2874	0.3214	0.09237036					
305	0.3278	0.3334	0.10928852					
310	0.1864	0.3424	0.06382336					
315	0.0839	0.3210	0.02693190					
320	0.0180	0.2751	0.00495180					

Rata-rata: 4,72887922

Uji Nilai SPF Emulgel 25% Sesudah Cycling Test

Replikasi 1

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.2931	0.00439650	0.31405430	2000	628.1086	0.0146	9.17038556
295	0.0817	0.3083	0.02518811					
300	0.2874	0.3157	0.09073218					
305	0.3278	0.3193	0.10466654					
310	0.1864	0.3196	0.05957344					
315	0.0839	0.2967	0.02489313					
320	0.0180	0.2558	0.00460440					

Replikasi 2

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3024	0.00453600	0.32327422	2000	646.5484	0.0146	9.43960722
295	0.0817	0.3178	0.02596426					
300	0.2874	0.3251	0.09343374					
305	0.3278	0.3283	0.10761674					
310	0.1864	0.3291	0.06134424					
315	0.0839	0.3056	0.02563984					
320	0.0180	0.2633	0.00473940					

Replikasi 3

Λ	EE x I	Abs	EE x I x Abs	\sum EE x I x Abs	FP	Total	CF	SPF
290	0.0150	0.3048	0.00457200	0.32504447	2000	650.0889	0.0146	9.49129852
295	0.0817	0.3201	0.02615217					
300	0.2874	0.3271	0.09400854					
305	0.3278	0.3301	0.10820678					
310	0.1864	0.3306	0.06162384					
315	0.0839	0.3066	0.02572374					
320	0.0180	0.2643	0.00475740					

Rata-rata: 9,36709710

Lampiran 6. Uji statistik mutu fisik emulgel minyak atsiri daun jeruk purut

Statistik *one way anova* viskositas hari ke-1

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	.172	12	.200*	.949	12	.628

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,628 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	.267	3	8	.848
	Based on Median	.333	3	8	.802
	Based on Median and with adjusted df	.333	3	8.000	.802
	Based on trimmed mean	.275	3	8	.842

Nilai sig 0,848 > 0,05 data homogen.

ANOVA

viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3233.333	3	1077.778	16.167	.001
Within Groups	533.333	8	66.667		
Total	3766.667	11			

Nilai sig 0,001 < 0,05 terdapat perbedaan viskositas diantara masing-masing formula,

Viskositas

Tukey HSD^a

Formula	N	Subset for alpha = 0.05		
		1	2	3
emulgel 15%	3	190.00		
emulgel 20%	3	203.33	203.33	
emulgel 25%	3		220.00	220.00
Basis	3			233.33
Sig.		.264	.134	.264

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistik one way anova viskositas hari ke-21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Viskositas	.226	12	.093	.910	12	.215

a. Lilliefors Significance Correction

Nilai sig 0,215 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	.000	3	8	1.000
	Based on Median	.000	3	8	1.000
	Based on Median and with adjusted df	.000	3	8.000	1.000
	Based on trimmed mean	.000	3	8	1.000

Nilai sig 1,000 > 0,05 data homogen

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2625.000	3	875.000	26.250	.000
Within Groups	266.667	8	33.333		
Total	2891.667	11			

Nilai sig 0,000 < 0,05 terdapat perbedaan viskositas diantara masing-masing formula.

Viskositas

Tukey HSD^a

Emulgel	N	Subset for alpha = 0.05	
		1	2
emulgel 15%	3	186.6667	
emulgel 20%	3	196.6667	
emulgel 25%	3		216.6667
Basis	3		223.3333
Sig.		.225	.525

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

SPSS Paired t test viskositas hari 1 dan 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	.172	12	.200 [*]	.949	12	.628
visk_sesudah	.226	12	.093	.910	12	.215

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Viskositas	211.67	12	18.505	5.342
	visk_sesudah	205.83	12	16.214	4.680

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	viskositas & visk_sesudah	12	.874	.000

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	viskositas - visk_sesudah	5.833	9.003	2.599	.113	11.554	2.244	11	.046

Nilai sig 0,046 > 0,05 terdapat perbedaan signifikan antara viskositas hari ke 1 dengan hari ke 21.

Statistik one way anova pH hari ke-1

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
pH	.194	12	.200*	.888	12	.112

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,112 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	3.944	3	8	.054
	Based on Median	1.144	3	8	.389
	Based on Median and with adjusted df	1.144	3	2.880	.461
	Based on trimmed mean	3.669	3	8	.063

Nilai sig 0,054 > 0,05 data homogen.

ANOVA

pH

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.140	3	.380	37.887	.000
Within Groups	.080	8	.010		
Total	1.221	11			

Nilai sig 0,000 < 0,05 terdapat perbedaan antar masing-masing formula

pH

Tukey B^a

Emulgel	N	Subset for alpha = 0.05		
		1	2	3
emulgel 25%	3	4.2300		
emulgel 20%	3	4.3833	4.3833	
emulgel 15%	3		4.5500	
Basis	3			5.0500

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic one way anova pH hari ke 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
pH	.174	12	.200*	.887	12	.107

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,107 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	1.669	3	8	.250
	Based on Median	1.371	3	8	.320
	Based on Median and with adjusted df	1.371	3	3.625	.381
	Based on trimmed mean	1.652	3	8	.253

Nilai sig 0,250 > 0,05 data homogen.

ANOVA

pH						
	Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups	.888	3	.296	61.743	.000	
Within Groups	.038	8	.005			
Total	.926	11				

Nilai sig 0,000 < 0,05 terdapat perbedaan pH antar masing-masing formula.

pH

Tukey HSD^a

Formula	N	Subset for alpha = 0.05		
		1	2	3
emulgel 25%	3	4.2600		
emulgel 20%	3	4.3767	4.3767	
emulgel 15%	3		4.5500	
Basis	3			4.9767
Sig.		.243	.061	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic paired t test pH hari 1 dan 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Sebelum	.194	12	.200*	.888	12	.112
Sesudah	.174	12	.200*	.887	12	.107

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	4.5533	12	.33312	.09616
	sesudah	4.5408	12	.29012	.08375

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	12	.931	.000

Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
				Lower	Upper				
				Paired Differences					
Pair 1	sebelum - sesudah	.01250	.12308	.03553	-.06570	.09070	.352	11	.732

Nilai sig 0,732 > 0,05 tidak terdapat perbedaan yang signifikan antara pH hari ke-1 dengan hari ke-21

Statistic one way anova daya sebar hari ke-1

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
daya_sebar	.139	12	.200*	.956	12	.719

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,719 > 0,05 data terdistribusi normal

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
daya_sebar	Based on Mean	.875	3	8	.493
	Based on Median	.376	3	8	.773
	Based on Median and with adjusted df	.376	3	6.968	.774
	Based on trimmed mean	.833	3	8	.513

Nilai sig 0,493 > 0,05 data homogen.

ANOVA

daya_sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.334	3	.111	46.063	.000
Within Groups	.019	8	.002		
Total	.353	11			

Nilai sig 0,000 < 0,05 terdapat perbedaan antar masing-masing formula.

daya_sebar

Tukey HSD^a

Formula	N	Subset for alpha = 0.05		
		1	2	3
Basis	3	3.2700		
emulgel 25%	3		3.4133	
emulgel 20%	3			3.5833
emulgel 15%	3			3.7100
Sig.		1.000	1.000	.053

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic one way anova daya sebar hari ke 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
daya_sebar21	.248	12	.041	.861	12	.051

a. Lilliefors Significance Correction

Nilai sig 0,051 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
daya_sebar21	Based on Mean	2.015	3	8	.190
	Based on Median	1.302	3	8	.339
	Based on Median and with adjusted df	1.302	3	4.372	.382
	Based on trimmed mean	1.974	3	8	.197

Nilai sig 0,190 > 0,05 data homogen.

ANOVA

daya_sebar21

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.490	3	.163	27.708	.000
Within Groups	.047	8	.006		
Total	.538	11			

Nilai sig 0,000 < 0,05 terdapat perbedaan antar masing-masing formula.

daya_sebar21

Tukey HSD^a

formula	N	Subset for alpha = 0.05		
		1	2	3
Basis	3	3.5600		
emulgel 25%	3		3.7700	
emulgel 20%	3			4.0200
emulgel 15%	3			4.0600
Sig.		1.000	1.000	.917

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic paired t test daya sebar hari ke 1 dan 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
daya_sebar21	.248	12	.041	.861	12	.051
daya_sebar	.139	12	.200*	.956	12	.719

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 daya_sebar	3.4942	12	.17921	.05173
daya_sebar21	3.8525	12	.22108	.06382

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 daya_sebar & daya_sebar21	12	.936	.000

Paired Samples Test

	Mean	Std. Deviation	Paired Differences		t	df	Sig. (2-tailed)
			Mean	Std. Error			
Pair 1 daya_sebar - daya_sebar21	-.35833	.08277	.02389		-11	.000	
				95% Confidence Interval of the Difference			
				Lower	Upper		
				-.41093	-.30574		
						14.996	

Nilai sig 0,000 < 0,05 terdapat perbedaan signifikan antara hari ke-1 dengan hari ke-21.

Statistic one way anova daya lekat hari ke 1

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
daya_lekat	.200	12	.200*	.918	12	.267

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,267 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
daya_lekat	Based on Mean	1.697	3	8	.244
	Based on Median	.972	3	8	.452
	Based on Median and with adjusted df	.972	3	4.800	.477
	Based on trimmed mean	1.648	3	8	.254

Nilai sig 0,244 > 0,05 data homogen.

ANOVA

daya_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.269	3	.423	16.922	.001
Within Groups	.200	8	.025		
Total	1.469	11			

Nilai sig 0,001 < 0,05 terdapat perbedaan antar masing-masing formula.

daya_lekat

Tukey HSD^a

formula	N	Subset for alpha = 0.05	
		1	2
Basis	3	1.2667	
emulgel 15%	3		1.8000
emulgel 20%	3		1.9667
emulgel 25%	3		2.1333
Sig.		1.000	.120

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic one way anova daya lekat hari ke 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
daya_lekat	.140	12	.200*	.946	12	.574

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Nilai sig 0,574 > 0,05 data terdistribusi normal.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
daya_lekat	Based on Mean	.675	3	8	.591
	Based on Median	.317	3	8	.813
	Based on Median and with adjusted df	.317	3	7.171	.813
	Based on trimmed mean	.646	3	8	.607

Nilai sig 0,591 > 0,05 data homogen.

ANOVA

daya_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.863	3	.288	8.023	.009
Within Groups	.287	8	.036		
Total	1.149	11			

Nilai sig 0,009 < 0,05 terdapat perbedaan antar masing-masing formula.

daya_lekat

Tukey HSD^a

formula	N	Subset for alpha = 0.05	
		1	2
Basis	3	1.3667	
emulgel 15%	3	1.8333	1.8333
emulgel 20%	3		1.9667
emulgel 25%	3		2.0667
Sig.		.065	.475

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Statistic *paired t test* daya lekat hari 1 dan 21

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
sebelum	.200	12	.200*	.918	12	.267
sesudah	.140	12	.200*	.946	12	.574

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	1.7917	12	.36546	.10550
	sesudah	1.8083	12	.32322	.09330

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	12	.924	.000

Paired Samples Test

		Paired Differences						t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
					Lower	Upper				
Pair 1	sebelum - sesudah	-.01667	.14035	.04051	-.10584	.07250	-.411	11	.689	

Nilai sig 0,689 > 0,05 tidak terdapat perbedaan signifikan daya lekat hari ke 1 dengan hari ke 21.

Uji *paired t test* stabilitas *cycling test* viskositas

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
viskositas_sblm	.172	12	.200*	.949	12	.628
viskositas_sesudah	.226	12	.093	.910	12	.215

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	viskositas_sblm	211.67	12	18.505	5.342
	viskositas_sesudah	204.17	12	16.214	4.680

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	viskositas_sblm & viskositas_sesudah	12	.793	.002

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	viskositas_sblm - viskositas_sesudah	7.500	11.382	3.286	.268	14.732	2.283	11	.043

Nilai sig 0,043 > 0,05 terdapat perbedaan yang signifikan.

Statistic paired t test stabilitas cycling test pH

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
stab_pH_sebelum	.253	4	.	.919	4	.530
stab_pH_sesudah	.356	4	.	.786	4	.079

a. Lilliefors Significance Correction

Data terdistribusi normal.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 stab_pH_sebelum	4.5525	4	.35650	.17825
stab_pH_sesudah	3.8600	4	.92786	.46393

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 stab_pH_sebelum & stab_pH_sesudah	4	.980	.020

Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 stab_pH_sebelum - stab_pH_sesudah	.69250	.58260	.29130	-.23455	1.61955	2.377	3	.098

Nilai sig 0,098 > 0,05 tidak terdapat perbedaan yang signifikan.

Lampiran 7. Uji statistik nilai SPF

Analisis statistic nilai SPF emulgel

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
SPF	.350	12	.000	.779	12	.005

a. Lilliefors Significance Correction

Ranks

	formula	N	Mean Rank
SPF	basis	3	2.00
	emulgel 15%	3	5.00
	emulgel 20%	3	8.00
	emulgel 25%	3	11.00
	Total		12

Test Statistics^{a,b}

SPF	
Kruskal-Wallis H	10.385
df	3
Asymp. Sig.	.016

a. Kruskal Wallis Test

b. Grouping Variable: formula

Analisis statistic nilai SPF emulgel setelah stabilitas

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
SPF	.248	12	.040	.847	12	.033

a. Lilliefors Significance Correction

Ranks

	Formula	N	Mean Rank
SPF	Basis	3	2.00
	emulgel 15%	3	5.00
	emulgel 20%	3	8.00
	emulgel 25%	3	11.00
	Total	12	

Test Statistics^{a,b}

SPF	
Kruskal-Wallis H	10.385
Df	3
Asymp. Sig.	.016

a. Kruskal Wallis Test

b. Grouping Variable: formula

Wilcoxon

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	.350	12	.000	.779	12	.005
Sesudah	.248	12	.040	.847	12	.033

a. Lilliefors Significance Correction

Ranks

		N	Mean Rank	Sum of Ranks
sesudah – sebelum	Negative Ranks	12 ^a	6.50	78.00
	Positive Ranks	0 ^b	.00	.00
	Ties	0 ^c		
	Total	12		

a. sesudah < sebelum

b. sesudah > sebelum

c. sesudah = sebelum

Test Statistics^a

	sesudah – sebelum
Z	-3.059 ^b
Asymp. Sig. (2-tailed)	.002

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.