Lampiran 1. Minyak Jelantah dan Minyak Hasil Pemurnian Karbon Aktif Minyak Jelantah





Lampiran 2. Perhitungan dan Cara Pembuatan Larutan KOH 0,1 N

Normalitas KOH : 0,1 N

Volume KOH : 250 ml

BM KOH : 56,1 g/mol

Berat KOH : M x V x BM

: 0,1 mol/L x 250 ml/1000 x 56,1 g/mol

: 1,4025 g

Cara Pembuatan:

* + 1. Ditimbang KOH sebanyak 1,4023 g
    2. Dimasukkan dalam beaker kemudian dilarutkan dengan 100 ml aquades
    3. Dipindahkan kedalam labu tentukur 250 ml, kemudian ad dengan aquades sampai garis tanda.

Lampiran 3. Perhitungan Asam Lemak Bebas, Bilangan Asam, Massa Jenis, dan Bilangan,Penyabunan Minyak jelantah

* + 1. Perhitungan Asam Lemak Bebas

Diketahui = 37,9 ml

Vol KOH = 5 gram

N KOH = 0.1 N

: 0,75

* + 1. Uji Bilangan Asam

Diketahui = 45,7 ml

N KOH = 0,1

BM KOH = 46,1/mol

Berat Saampel = 10 gram

= 25,634

**Lampiran 3.** (Lanjutan)

* + 1. Massa Jenis

Diketahui:

m1 = 16,3440 g

m2 = 25,8 g

V = 10,570 ml

= 0,8949 g/ml

* + 1. Bilangan Penyabunan

Diketahui:

Vb = 25,9 ml

Vt = 24,8 ml

N = 0,5 N

BM = 56,1

M = 5 g

= 6,171

Lampiran 4. Perhitungan Asam Lemak Bebas

1. Perhitungan Asam Lemak Bebas

Diketahui;

V KOH = 30,5ml

Berat minyak = 5 gram

N KOH = 0,1 N

: 0,61

1. Uji Bilangan Asam

Diketahui:

V KOH =7 ml

N KOH = 0,1

BM KOH = 56,1 g/mol

Berat Minyak = 5 g

= 3,92

**Lampiran 4.** (Lanjutan)

1. Massa Jenis

Diketahui:

m1 = 16,685 g

m2 = 26,2 g

v = 10,570 ml

= 0,9010 g/ml

1. Bilangan Penyabunan

Vb = 27,3 ml

Vt = 25,2 ml

N = 0,5 N

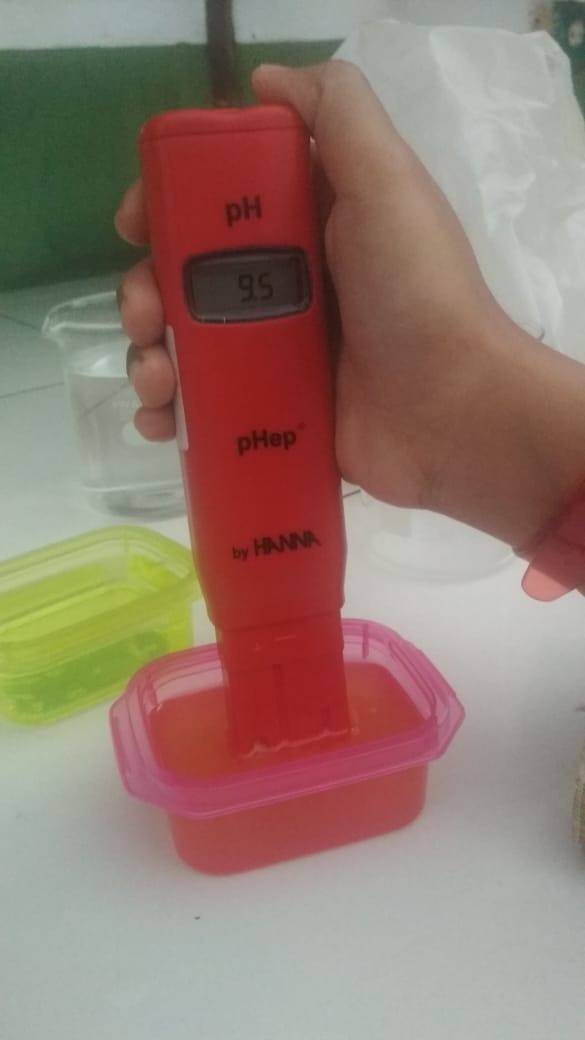
BM = 56,1

M = 5 g

= 11,781

Lampiran 5. Proses Pemurnian Minyak Jelantah Dengan Karbon Aktif

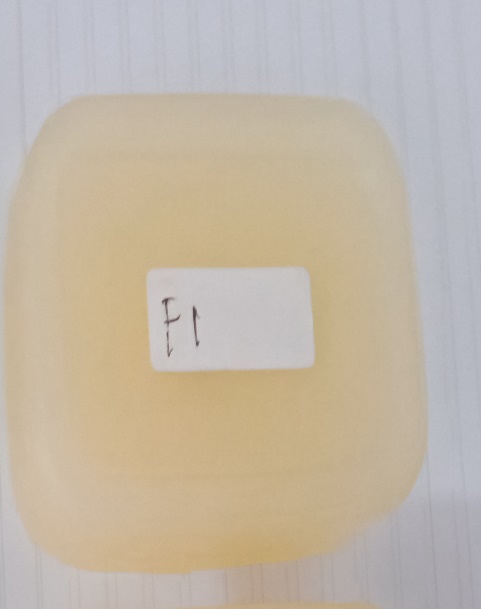


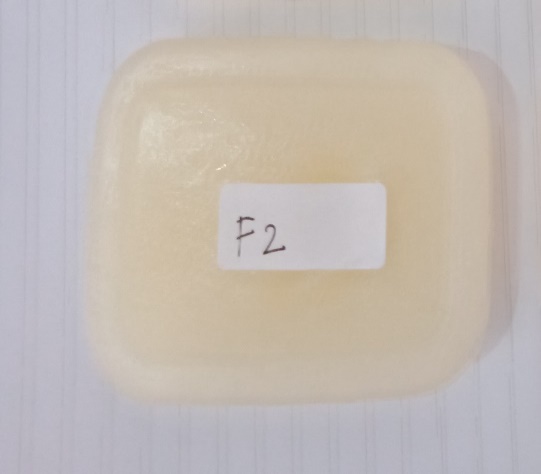


Lampiran 6. Sediaan Sabun Padat Dari Bahan Dasar Minyak Hasil Pemurnian Karbon Aktif Minyak Jelantah

Sari Buah Melon







**Lampiran 1.** Pengujian Kdar Air





Lampiran 8. Perhitumgan Kadar Air Sabun Padat dengan Bahan Dasar Minyak Hasil Pemurnian Karbon Aktif Minyak Jelantah

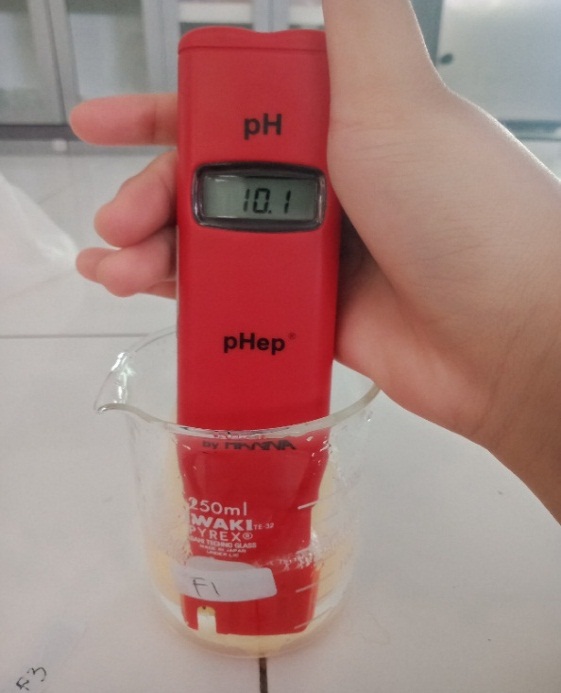
Keterangan :

W1 = Berat Cawan Kosong

W2 = Berat Cawan + Isi (setelah oven)

* F0 =
* F1 =
* F2 =
* F3 =

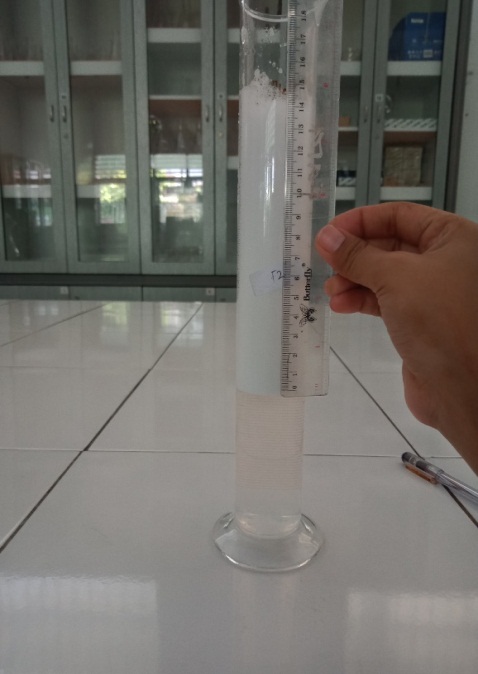
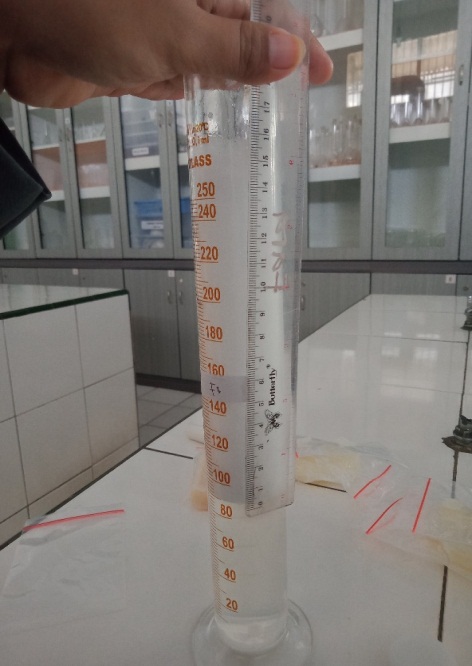
Lampiran 9. Pengujian pH Sabun Padat





Lampiran 10. Pengujian Tinggi Busa





Lampiran 11. Uji Iritasi Sukarelawan

Blanko (F0) Setelah 24 jam

Formula 1 Setelah 24 jam

Formula 2 Setelah 24 jam

Formula 3 Setelah 24 jam

Lampiran 12. Alat Viskometer



Lampiran 13. Bagan Alir Pengujian Asam Lemak Bebas

5 g minyak

Dimasukkan dalam erlenmeyer

Minyak panas

Di panaskan

Di dinginkan

Di d Setelah dingin Ditetesi 2- 3 tetes ind.pp

inginkan

Merah muda mantap

Di tetesi dengan KOH 0,1

Lampiran 14. Bagan Alir Bilangan Asam

10 g minyak

Di gojlok kuat

Tetesi 2-3 tetes ind.pp

Dinginkan

Minyak panas

Di gojlok kuat

Di gojlok kuat

Di tetesi dengan KOH 0,1

Merah

Muda mantap

Lampiran 15. Bagan Alir Bilangan Penyabunan

5 g minyak

Dimasukkan dalam erlenmyer

Ditambahakan 25 ml KOH 0,5 N beralkohol

Direfluks selama 30 menit

Didinginkan

Ditetesi 2-3 tetes ind.pp

Dititrasi dengan HCL 0,5 N

Merah muda hilang

Lampiran 16. Bagan Alir Pemurnian Karbon Aktif

500 ml air dan ditambahn 500 ml minyak jelantah

Dipanaskan dengan hotplate sampai suhu 1100C

Volume air menjadi setengah dari awal volume

Larutan dipisahkan menggunakan corong pisah

Hasil despicing minyak goreng 450 g

Minyak pemurnian carbon aktif

Dipanaskan dengan suhu 70oC

Ditambah carbon aktif 75 mg

Ditingkatkan suhu 100oC

Disaring dengan kain katun putih

Dipisahkan minyak dengan carbon aktif

Hasil minyak goreng netralisasi sebanyak 200 g

Suhu ditingkat 40oC

Aduk 10 menit lalu saring dengan kertas saring untuk memisahkan kotoran

Panaskan pada suhu 35oC NaOH 10% hingga larutan netral pH 7

Lampiran 17. Bagan Alir Pembuatan Sabun Padat Minyak Hasil Pemurnian Karbon Aktif

Sabun padat

Ditambah sari melon

Ditambah diaduk

Ditambah aquadest

Ditambah gula

Ditambah etanol 96 %

Ditambah TEA

Diaduk

Ditambah asam sitrat

Sediaan larut

Campuran NaOH

Diaduk sampai terbentuk masa penyabunan

Ditambah gliserin

Ditambah NaOH 30 %

Minyak hasil pemurnian carbon aktif

Dilebur pada penangas air dengan suhu 70-800C

Asam stearat

Lampiran 18. Bagan Alir Pengujian Kadar Air

4 gram sabun

Ditimbang berat cawan + sampel

Sabun kering

Dihitung selisih berat cawan

kosong dengan cawan + isi yang telah di oven

selama 3 jam

Dimasukkan kedalam oven selama 3 jam

Dimasukkan dalam cawan kosong yang sebelumnya telah di timbang

Lampiran 19. Bagan Alir Pengujian pH

1 gram sabun

Digerus halus

Dimasukkan kedalam beaker gelas

beaker gelas

Ditambahkan 10 ml air Dimasukkan dalam

Dimasukkan pH meter

Larutan sabun

Dilihat pH yang tercantum pH meter

Lampiran 20. Bagan Alir Pengujian Tinggi Busa

1 gram sabun

Digerus halus

Ditambahkan 10 ml air Dimasukkan dalam

Dihitung tinggi busa setelah 5 menit (Hs)

Dihitung selisih tinggi busa

Diukur tinggi busa (H0)

Didiamkan 5 menit

Ditutup gelas ukur

Dikocok selama 10 menit

Gelas ukur

Dimasukkan dalam labu tentukur 10 ml

Lampiran 21. Lembar Kusioner Uji Hedonik (kesukaan)

Nama :

Tanggal Pengujian :

Jenis Produk : Sabun

Intruksi : Nyatakan Penilaian Anda Sesuai Kriteria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Formula | Parameter | | | | |
| Tekstur | Aroma | Warna | Busa | Tampilan |
| F0 |  |  |  |  |  |
| F1 |  |  |  |  |  |
| F2 |  |  |  |  |  |
| F3 |  |  |  |  |  |

Kriteria :

1. : Sangat Tidak Suk
2. : Tidak suka
3. : Agak suka
4. : Suka
5. : Sangat Su

Lampiran 22. Tabel Hasil Uji Kesukaan *(hedonik)*

1. Data Uji Kesukaan Pada Tekstur

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panelis | Data Hasil Uji Kesukaan Tekstur dari sediaan | | | | | | | |
| F0 | | F1 | | F2 | | F3 | |
| Kode | Nilai | Kode | Nilai | Kode | Nilai | Kode | Nilai |
| 1 | SS | 5 | S | 4 | S | 4 | S | 4 |
| 2 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 3 | S | 4 | AS | 3 | AS | 3 | AS | 3 |
| 4 | SS | 5 | AS | 3 | AS | 3 | AS | 3 |
| 5 | S | 4 | AS | 3 | AS | 3 | AS | 3 |
| 6 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 7 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 8 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 9 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 10 | S | 4 | AS | 3 | TS | 2 | S | 4 |
| 11 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 12 | SS | 5 | AS | 3 | S | 4 | S | 4 |
| 13 | SS | 5 | AS | 3 | AS | 3 | S | 4 |
| 14 | SS | 5 | S | 4 | TS | 2 | S | 4 |
| 15 | S | 4 | S | 4 | S | 4 | S | 4 |
| 16 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 17 | S | 4 | S | 4 | S | 4 | S | 4 |
| 18 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 19 | S | 4 | S | 4 | AS | 3 | TS | 2 |
| 20 | S | 4 | AS | 3 | S | 4 | TS | 2 |
| 21 | SS | 5 | S | 4 | S | 4 | TS | 2 |
| 22 | SS | 5 | S | 4 | AS | 3 | AS | 3 |
| 23 | SS | 5 | AS | 3 | TS | 2 | AS | 3 |
| 24 | SS | 5 | AS | 3 | S | 4 | AS | 3 |
| 25 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 26 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 27 | S | 4 | AS | 3 | S | 4 | AS | 3 |
| 28 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 29 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 30 | SS | 5 | S | 4 | AS | 3 | S | 4 |

**Lampiran 22.** (Lanjutan)

1. Data Uji Kesukaan Pada Aroma

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panelis | Data Hasil Uji Kesukaan Tekstur dari sediaan | | | | | | | |
| F0 | | F1 | | F2 | | F3 | |
| Kode | Nilai | Kode | Nilai | Kode | Nilai | Kode | Nilai |
| 1 | S | 4 | S | 4 | S | 4 | S | 4 |
| 2 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 3 | S | 4 | AS | 3 | S | 4 | AS | 3 |
| 4 | AS | 3 | S | 4 | S | 4 | S | 4 |
| 5 | AS | 3 | AS | 3 | S | 4 | S | 4 |
| 6 | AS | 3 | S | 4 | S | 4 | S | 4 |
| 7 | AS | 3 | AS | 3 | S | 4 | S | 4 |
| 8 | AS | 3 | AS | 3 | AS | 3 | AS | 3 |
| 9 | S | 4 | AS | 3 | AS | 3 | S | 4 |
| 10 | S | 4 | S | 4 | S | 4 | S | 4 |
| 11 | S | 4 | S | 4 | AS | 3 | TS | 2 |
| 12 | AS | 3 | S | 4 | S | 4 | AS | 3 |
| 13 | S | 4 | S | 4 | AS | 3 | TS | 2 |
| 14 | AS | 3 | AS | 3 | AS | 3 | S | 4 |
| 15 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 16 | S | 4 | AS | 3 | S | 4 | AS | 3 |
| 17 | AS | 3 | AS | 3 | S | 4 | TS | 2 |
| 18 | S | 4 | AS | 3 | AS | 3 | TS | 2 |
| 19 | S | 4 | S | 4 | AS | 3 | TS | 2 |
| 20 | AS | 3 | S | 4 | AS | 3 | TS | 2 |
| 21 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 22 | AS | 3 | S | 4 | S | 4 | S | 4 |
| 23 | S | 4 | S | 4 | TS | 2 | S | 4 |
| 24 | S | 4 | S | 4 | TS | 2 | S | 4 |
| 25 | S | 4 | S | 4 | TS | 2 | AS | 3 |
| 26 | S | 4 | S | 4 | S | 4 | S | 4 |
| 27 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 28 | S | 4 | S | 4 | TS | 2 | S | 4 |
| 29 | S | 4 | S | 4 | AS | 3 | AS | 3 |
| 30 | S | 4 | S | 4 | AS | 3 | AS | 3 |

**Lampiran 22.** (Lanjutan)

1. Data Uji Kesukaan Pada Warna

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panelis | Data Hasil Uji Kesukaan Tekstur dari sediaan | | | | | | | |
| F0 | | F1 | | F2 | | F3 | |
| Kode | Nilai | Kode | Nilai | Kode | Nilai | Kode | Nilai |
| 1 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 2 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 3 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 4 | SS | 5 | AS | 3 | S | 4 | AS | 3 |
| 5 | SS | 5 | AS | 3 | S | 4 | AS | 3 |
| 6 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 7 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 8 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 9 | S | 4 | AS | 3 | S | 4 | TS | 2 |
| 10 | S | 4 | AS | 3 | S | 4 | TS | 2 |
| 11 | SS | 5 | AS | 3 | S | 4 | TS | 2 |
| 12 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 13 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 14 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 15 | SS | 5 | S | 4 | AS | 3 | AS | 3 |
| 16 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 17 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 18 | S | 4 | S | 4 | S | 4 | S | 4 |
| 19 | SS | 5 | S | 4 | S | 4 | S | 4 |
| 20 | S | 4 | S | 4 | S | 4 | S | 4 |
| 21 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 22 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 23 | SS | 5 | S | 4 | AS | 3 | AS | 3 |
| 24 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 25 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 26 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 27 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 28 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 29 | SS | 5 | AS | 3 | AS | 3 | AS | 3 |
| 30 | S | 4 | S | 4 | AS | 3 | AS | 3 |

**Lampiran 22.** (Lanjutan)

1. Data Uji Kesukaan Pada Busa

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panelis | Data Hasil Uji Kesukaan Tekstur dari sediaan | | | | | | | |
| F0 | | F1 | | F2 | | F3 | |
| Kode | Nilai | Kode | Nilai | Kode | Nilai | Kode | Nilai |
| 1 | AS | 3 | AS | 3 | AS | 3 | AS | 3 |
| 2 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 3 | AS | 3 | S | 4 | SS | 5 | S | 4 |
| 4 | AS | 3 | S | 4 | SS | 5 | AS | 3 |
| 5 | AS | 3 | S | 4 | SS | 5 | S | 4 |
| 6 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 7 | S | 4 | AS | 3 | S | 4 | AS | 3 |
| 8 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 9 | S | 4 | S | 4 | SS | 5 | AS | 3 |
| 10 | S | 4 | AS | 3 | SS | 5 | S | 4 |
| 11 | S | 4 | AS | 3 | SS | 5 | S | 4 |
| 12 | S | 4 | AS | 3 | SS | 5 | S | 4 |
| 13 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 14 | S | 4 | S | 4 | S | 4 | S | 4 |
| 15 | AS | 3 | S | 4 | S | 4 | S | 4 |
| 16 | AS | 3 | S | 4 | S | 4 | AS | 3 |
| 17 | AS | 3 | S | 4 | S | 4 | S | 4 |
| 18 | AS | 3 | S | 4 | SS | 5 | S | 4 |
| 19 | AS | 3 | S | 4 | SS | 5 | S | 4 |
| 20 | S | 4 | S | 4 | SS | 5 | AS | 3 |
| 21 | S | 4 | S | 4 | SS | 5 | AS | 3 |
| 22 | S | 4 | AS | 3 | SS | 5 | AS | 3 |
| 23 | AS | 3 | SS | 5 | S | 4 | S | 4 |
| 24 | AS | 3 | SS | 5 | S | 4 | S | 4 |
| 25 | AS | 3 | AS | 3 | S | 4 | AS | 3 |
| 26 | AS | 3 | S | 4 | SS | 5 | AS | 3 |
| 27 | AS | 3 | SS | 5 | SS | 5 | S | 4 |
| 28 | S | 4 | SS | 5 | SS | 5 | S | 4 |
| 29 | S | 4 | SS | 5 | SS | 5 | S | 4 |
| 30 | S | 4 | SS | 5 | S | 3 | S | 4 |

**Lampiran 22.** (Lanjutan)

1. Data Uji Kesukaan Pada Tampilan

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Panelis | Data Hasil Uji Kesukaan Tekstur dari sediaan | | | | | | | |
| F0 | | F1 | | F2 | | F3 | |
| Kode | Nilai | Kode | Nilai | Kode | Nilai | Kode | Nilai |
| 1 | SS | 5 | S | 4 | S | 4 | S | 4 |
| 2 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 3 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 4 | S | 4 | S | 4 | AS | 3 | S | 4 |
| 5 | SS | 5 | S | 4 | S | 4 | S | 4 |
| 6 | S | 4 | SS | 5 | S | 4 | AS | 3 |
| 7 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 8 | SS | 5 | AS | 3 | AS | 3 | AS | 3 |
| 9 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 10 | SS | 5 | SS | 5 | S | 4 | AS | 3 |
| 11 | S | 4 | SS | 5 | S | 4 | S | 4 |
| 12 | SS | 5 | SS | 5 | S | 4 | S | 4 |
| 13 | SS | 5 | AS | 3 | SS | 5 | AS | 3 |
| 14 | SS | 5 | AS | 3 | AS | 3 | S | 4 |
| 15 | S | 4 | AS | 3 | AS | 3 | S | 4 |
| 16 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 17 | S | 4 | AS | 3 | S | 4 | AS | 3 |
| 18 | S | 4 | S | 4 | S | 4 | AS | 3 |
| 19 | SS | 5 | S | 4 | AS | 3 | AS | 3 |
| 20 | S | 4 | S | 4 | S | 4 | S | 4 |
| 21 | S | 4 | AS | 3 | S | 4 | S | 4 |
| 22 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 23 | SS | 5 | S | 4 | AS | 3 | AS | 3 |
| 24 | SS | 5 | AS | 3 | AS | 3 | AS | 3 |
| 25 | SS | 5 | S | 4 | S | 4 | AS | 3 |
| 26 | S | 4 | S | 4 | S | 4 | S | 4 |
| 27 | S | 4 | AS | 3 | AS | 3 | S | 4 |
| 28 | SS | 5 | S | 4 | AS | 3 | S | 4 |
| 29 | SS | 5 | S | 4 | S | 4 | S | 4 |
| 30 | SS | 5 | AS | 3 | S | 4 | S | 4 |

Lampiran 23. Hasil Uji Intrtval Nilai Kesukaan

Nilai Kesukaan Tekstur Formula Blanko ( Sediaan Tanpa Sari Melon)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| panelis | Hasil Uji Kesukaan Tekstur Pda Panelis | | | |
| Kode | Nilai kesukaan (ⅺ) | (ⅺ - ) | (ⅺ-) |
| 1 | SS | 5 | 0,6 | 0,36 |
| 2 | S | 4 | 0,4 | 0,16 |
| 3 | S | 4 | 0,4 | 0,16 |
| 4 | SS | 5 | 0,6 | 0,36 |
| 5 | S | 4 | 0,4 | 0,16 |
| 6 | S | 4 | 0,4 | 0,16 |
| 7 | S | 4 | 0,4 | 0,16 |
| 8 | S | 4 | 0,4 | 0,16 |
| 9 | S | 4 | 0,4 | 0,16 |
| 10 | S | 4 | 0,4 | 0,16 |
| 11 | S | 4 | 0,4 | 0,16 |
| 12 | SS | 5 | 0,6 | 0,36 |
| 13 | SS | 5 | 0,6 | 0,36 |
| 14 | SS | 5 | 0,6 | 0,36 |
| 15 | S | 4 | 0,4 | 0,16 |
| 16 | SS | 5 | 0,4 | 0,16 |
| 17 | S | 4 | 0,4 | 0,16 |
| 18 | S | 4 | 0,4 | 0,16 |
| 19 | S | 4 | 0,4 | 0,16 |
| 20 | S | 4 | 0,4 | 0,16 |
| 21 | SS | 5 | 0,6 | 0,36 |
| 22 | SS | 5 | 0,6 | 0,36 |
| 23 | SS | 5 | 0,6 | 0,36 |
| 24 | SS | 5 | 0,6 | 0,36 |
| 25 | S | 4 | 0,4 | 0,16 |
| 26 | S | 4 | 0,4 | 0,16 |
| 27 | S | 4 | 0,4 | 0,16 |
| 28 | S | 4 | 0,4 | 0,16 |
| 29 | SS | 5 | 0,6 | 0,36 |
| 30 | SS | 5 | 0,6 | 0,36 |
| Nilai rata-rata | | 4,4 | )2 | 6,64 |

**Lampiran 23. (**lanjutan)

= 0,4774

Rentang nilai kesukaan dari parameter tekstur formula blanko (F0) sediaan sabun padat bahn dasa minyak pemurnian karbon aktif minyak jelantah :

= Nilai rata-rata ( ) – 0,4774 ≥ µ Nilai rata-rata ( ) + 0,4774

= 2,8 – 0,4774 ≥ µ 2,8 + 0,4774

= 3,9226 ≥ µ 4,8774

Dengan cara yang sama dihitung nilai rata-rata, nilai standar deviasi dan nilai rentang kesukaan untu F0,F1,F2 dan F3 terhadap uji kesukaan pada tekstur, Aroma, Wrna, Busa, dan Tampilan, Adapun Datanya dapat dilihat dalam tabel beruikut:

**Lampiran 23. (**lanjutan)

1. **Data Nilai rata-rata, Standar Deviasi dan Nilai Kesukaan Pada Segi Tekstur**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Formula blanko | Formula 1 | Formula 2 | Formula 3 |
| Rata-rata nilai kesukaan | 4,6 | 3,6 | 4,4 | 3,4 |
| Standar Deviasi | 0,4774 | 0,8423 | 0,8452 | 0,8837 |
| Rentang Nilai Keesukaan | 3,9226  Sampai  4,8774 | 2,7577  sampai 4,4423 | 3,5548  sampai  5,2452 | 2,5163 sampai 4,2837 |

1. **Data Nilai Rata-rata Standar Deviasi dan Nilai Kesukaan Pada Segi Aroma**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Formula blanko | Formula 1 | Formula 2 | Formula 3 |
| Rata-rata nilai kesukaan | 3,6 | 3,6 | 3,4 | 3,3 |
| Standar Deviasi | 0,8395 | 0,7640 | 0,6362 | 0,8803 |
| Rentang Nilai Keesukaan | 2,7605  Sampai  4,4395 | 2,926  Sampai  4,274 | 2,7638  Sampai  4,0362 | 2,4197  Sampai  4,1803 |

1. **Data Nilai Rata-rata Standar Deviasi dan Nilai Kesukaan Pada Segi warna**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Formula blanko | Foemula 1 | Formula 2 | Formula 3 |
| Rata-rata nilai kesukaan | 4,5 | 3,5 | 3,7 | 3,3 |
| Standar Deviasi | 0,8509 | 0,8509 | 0,8053 | 0,8448 |
| Rentang Nilai Keesukaan | 3,9191  Sampai  5,3509 | 2,6491  Samapi  4,3509 | 2,8847  Sampai  4,5053 | 2,4552  Sampai  4,1448 |

**Lampiran 23. (**lanjutan)

1. **Data Nilai Rata-rata Standar Deviasi dan Nilai Kesukaan Pada Segi Busa**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Formula blanko | Formula 1 | Formula 2 | Formula 3 |
| Rata-rata nilai kesukaan | 3,4 | 3,9 | 4,5 | 3,5 |
| Standar Deviasi | 0,8240 | 0,870 | 0,8509 | 0,8509 |
| Rentang Nilai Keesukaan | 2,576  Sampai  4,224 | 3,053  Sampai  4,747 | 3,6491  Sampai  5,3509 | 2,6491  Sampai  4,3509 |

1. **Data Nilai Rata-rata Standar Deviasi dan Nilai Kesukaan Pada Segi Tampilan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Formula blanko | Formula 1 | Formula 2 | Formula 3 |
| Rata-rata nilai kesukaan | 4,6 | 3,7 | 3,6 | 3,8 |
| Standar Deviasi | 0,8565 | 0,8181 | 0,8563 | 0,8104 |
| Rentang Nilai Keesukaan | 3,7435  Sampai  5,4563 | 2,8819  Sampai  4,5181 | 2,7546  Sampai  4,4452 | 2,9896  Sampai  4,2104 |