

LAMPIRAN
PERHITUNGAN HASIL ANALISA

Tabel 6. Hasil Analisa Cake

Variabel Bukaan	Plate	Cawan Basah			Cawan Kering		
		I	II	III	I	II	III
½	I	270,32	292,65	288,81	261,02	278,87	281,14
	II	240,19	269,87	259,25	231,87	258,47	249,16
	III	227,17	210,32	233,31	218,75	201,03	222,29
1	I	228,28	248,88	240,67	219,03	238,13	231,56
	II	212,87	231,97	218,09	201,78	222,51	209,77
	III	203,07	212,1	198,06	190,87	203,9	190,37

Tabel 7. Hasil Analisa Densitas dan Viskositas

Variabel Bukaan	m			
	(piknometer isi)		tx (waktu alir)	
	Sebelum	Sesudah	Sebelum	Sesudah
½	50,23	48,98	1,20	1,10
1	50,23	49,78	1,20	1,15

1. Perhitungan Hasil Analisa

1.1. Cake Basah

Rumus :

$$\text{Cake} = \text{Cawan Basah (isi)} - \text{Cawan Kosong}$$

1.1.2. Variabel Bukaan ½

a. Plate I

I. $\text{Cake} = 270,32 - 42,76 = 227,56$

II. $\text{Cake} = 292,87 - 47,90 = 244,97$

$$\text{III. Cake} = 288,81 - 43,45 = 245,36$$

$$\text{Total} = 717,89$$

b. Plate II

$$\text{I. Cake} = 240,19 - 42,85 = 197,34$$

$$\text{II. Cake} = 269,87 - 47,11 = 222,73$$

$$\text{III. Cake} = 259,25 - 42,90 = 216,35$$

$$\text{Total} = 636,42$$

c. Plate III

$$\text{I. Cake} = 227,17 - 43,22 = 183,95$$

$$\text{II. Cake} = 210,32 - 46,12 = 164,20$$

$$\text{III. Cake} = 233,31 - 43,14 = 190,17$$

$$\text{Total} = 538,32$$

1.1.3. Variabel Bukaan 1

a. Plate I

$$\text{I. Cake} = 228,28 - 43,31 = 184,97$$

$$\text{II. Cake} = 248,88 - 48,16 = 200,72$$

$$\text{III. Cake} = 240,67 - 42,28 = 198,39$$

$$\text{Total} = 584,01$$

b. Plate II

$$\text{I. Cake} = 212,87 - 43,99 = 168,88$$

$$\text{II. Cake} = 231,97 - 47,19 = 184,78$$

$$\text{III. Cake} = 218,09 - 43,36 = 174,73$$

$$\text{Total} = 528,39$$

c. Plate III

$$\text{I. Cake} = 203,07 - 42,78 = 160,29$$

$$\text{II. Cake} = 212,10 - 48,03 = 164,07$$

$$\text{III. Cake} = 198,06 - 42,25 = 155,81$$

$$\text{Total} = 480,17$$

1.2. Cake Kering

Rumus :

$$\text{Cake} = \text{Cawan kering (isi)} - \text{Cawan Kosong}$$

1.2.2. Variabel Bukaannya ½ bukaan

a. Plate I

$$\text{I. Cake} = 261.02 - 42.76 = 218.26$$

$$\text{II. Cake} = 278.87 - 47.90 = 230.97$$

$$\text{III. Cake} = 281.14 - 43.45 = 237.69$$

$$\text{Total} = 686.92$$

b. Plate II

$$\text{I. Cake} = 231.87 - 42.85 = 189.02$$

$$\text{II. Cake} = 258.47 - 47.11 = 211.36$$

$$\text{III. Cake} = 249.16 - 42.90 = 206.26$$

$$\text{Total} = 606.64$$

c. Plate III

$$\text{I. Cake} = 218.75 - 43.22 = 175.53$$

$$\text{II. Cake} = 201.03 - 46.12 = 154.91$$

$$\text{III. Cake} = 222.29 - 43.14 = 179.15$$

$$\text{Total} = 509.59$$

1.2.3 Variabel Bukaannya 1 Bukaan

a. Plate I

$$\text{I. Cake} = 219.03 - 43.31 = 175.72$$

$$\text{II. Cake} = 238.13 - 48.16 = 189.97$$

$$\text{III. Cake} = 231.56 - 42.28 = 189.28$$

$$\text{Total} = 554.97$$

b. Plate II

$$\text{I. Cake} = 201.78 - 43.99 = 157.79$$

$$\text{II. Cake} = 222.51 - 47.19 = 175.32$$

$$\text{III. Cake} = 209.77 - 43.36 = 166.41$$

$$\text{Total} = 499.52$$

c. Plate III

$$\text{I. Cake} = 190.87 - 42.78 = 148.09$$

$$\text{II. Cake} = 203.90 - 48.03 = 155.87$$

$$\text{III. Cake} = 190.37 - 42.25 = 148.12$$

$$\text{Total} = 452.08$$

1.3. Densitas

$$\rho = \frac{m}{v}$$

1.3.2. Variabel 1/2 Bukaam

a. Sebelum

$$\rho = \frac{50.23 - 23.01}{25} = 1,0888 \text{ gram/ml}$$

b. Sesudah

$$\rho = \frac{48,98 - 23,01}{25} = 1,0388 \text{ gram/ml}$$

1.3.3 Variabel 1 Bukaam

a. Sebelum

$$\rho = \frac{50.23 - 23,01}{25} = 1,0888 \text{ gram/ml}$$

b. Sesudah

$$\rho = \frac{49,78 - 23,01}{25} = 1,0708 \text{ gram/ml}$$

1.4. Viskositas

$$\mu_x = \frac{dx \cdot tx}{do \cdot to} \mu_o$$

1.4.2. Variabel 1/2 Bukaam

a. Sebelum

$$\mu_x = \frac{1,20 \cdot 1,0888}{1 \cdot 1} 1 = 1,30656 \text{ cp}$$

b. Sesudah

$$\mu x = \frac{1,10 \cdot 1,0388}{1 \cdot 1} 1 = 1,14268 \text{ cp}$$

1.4.1. Variabel 1 Bukaan

a. Sebelum

$$\mu x = \frac{1,20 \cdot 1,0888}{1 \cdot 1} 1 = 1,30656 \text{ cp}$$

b. Sesudah

$$\mu x = \frac{1,15 \cdot 1,0708}{1 \cdot 1} 1 = 1,23142 \text{ cp}$$

Kadar Air

a. Variabel ½ bukaan

- Plate I

$$\text{Kadar Air} = \frac{717,89 - 686,92}{686,92} \times 100 \%$$

$$717,89$$

$$= 4,31 \%$$

- Plate II

$$\text{Kadar Air} = \frac{636,42 - 606,64}{606,64} \times 100 \%$$

$$636,42$$

$$= 4,67 \%$$

- Plate III

$$\text{Kadar Air} = \frac{538,32 - 505,59}{505,59} \times 100 \%$$

$$538,32$$

$$= 5,34 \%$$

b. Variabel 1

• Plate I

$$\begin{aligned} \text{Kadar Air} &= \frac{584,01 - 554,97}{584,01} \times 100 \% \\ &= 4,97 \% \end{aligned}$$

• Plate II

$$\begin{aligned} \text{Kadar Air} &= \frac{528,39 - 499,52}{528,39} \times 100 \% \\ &= 5,46 \% \end{aligned}$$

• Plate III

$$\begin{aligned} \text{Kadar Air} &= \frac{480,17 - 452,08}{480,17} \times 100 \% \\ &= 6,21 \% \end{aligned}$$