

**LAMPIRAN**  
**PERHITUNGAN HASIL ANALISA**

Tabel 6. Hasil Analisa Cake

Variabel Tekanan	Nampan	Cawan Basah	Cawan Kering
2	I	1080,25	880,12
	II	770,44	722,61
	III	700,64	660,23
4	I	1060,23	865,15
	II	851,21	780,32
	III	801,12	740,40

Tabel 7. Hasil Analisa Densitas dan Viskositas

Variabel Tekanan	M			
	(piknometer isi)		tx (waktu alir)	
	Sebelum	Sesudah	Sebelum	Sesudah
2	43,20	41,41	1,15	1,05
4	43,20	41,56	1,15	1,10

B

1. Perhitungan Hasil Analisa

1.1. Cake Basah

Rumus :

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

1.1.2. Variabel Tekanan 2 bar

a. Plate I

$$\begin{aligned}\text{Cake} &= 1080,25 - 880,12 \\ &= 200,13\end{aligned}$$

b. Plate II

$$\begin{aligned}\text{Cake} &= 851,21 - 780,32 \\ &= 70,89\end{aligned}$$

c. Plate III

$$\begin{aligned}\text{Cake} &= 801,12 - 740,40 \\ &= 60,72\end{aligned}$$

1.1.3. Variabel Tekanan 4 bar

a. Plate I

$$\begin{aligned}\text{Cake} &= 1060,23 - 865,15 \\ &= 195,08\end{aligned}$$

b. Plate II

$$\begin{aligned}\text{Cake} &= 770,44 - 722,61 \\ &= 47,83\end{aligned}$$

c. Plate III

$$\begin{aligned}\text{Cake} &= 700,64 - 660,23 \\ &= 40,41\end{aligned}$$

1.2. Cake Kering

Rumus :

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

1.2.2. Variabel Tekanan 2 bar

a. Plate I

$$\begin{aligned}\text{Cake} &= 880,12 - 193,67 \\ &= 686,45\end{aligned}$$

b. Plate II

$$\begin{aligned}\text{Cake} &= 722,61 - 189,15 \\ &= 533,46\end{aligned}$$

c. Plate III

$$\begin{aligned}\text{Cake} &= 660,23 - 191,28 \\ &= 468,95\end{aligned}$$

1.2.3. Variabel Tekanan 4 bar

a. Plate I

$$\begin{aligned}\text{Cake} &= 865,15 - 193,45 \\ &= 671,7\end{aligned}$$

b. Plate II

$$\begin{aligned}\text{Cake} &= 780,32 - 188,56 \\ &= 591,76\end{aligned}$$

c. Plate III

$$\begin{aligned}\text{Cake} &= 740,40 - 190,65 \\ &= 549,75\end{aligned}$$

1.3. Densitas

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

1.3.2. Tekanan 2 bar

a. Sebelum

$$\rho = \frac{43,20 - 16,90}{25} = 1,052 \text{ gram/ml}$$

b. Sesudah

$$\rho = \frac{41,41 - 16,90}{25} = 0,980 \text{ gram/ml}$$

1.3.3 Tekanan 4 bar

a. Sebelum

$$\rho = \frac{43,20 - 16,90}{25} = 1,052 \text{ gram/ml}$$

b. Sesudah

$$\rho = \frac{41,56 - 16,90}{25} = 0,986 \text{ gram/ml}$$

1.4. Viskositas

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

1.4.2. Tekanan 2 bar

a. Sebelum

$$\mu x = \frac{1,052 \cdot 1,15}{1 \cdot 1} 1 = 1,2098 \text{ cp}$$

b. Sesudah

$$\mu x = \frac{0,980 \cdot 1,05}{1 \cdot 1} 1 = 1,029 \text{ cp}$$

1.4.1. Tekanan 4 bar

a. Sebelum

$$\mu x = \frac{1,052 \cdot 1,15}{1 \cdot 1} 1 = 1,2098 \text{ cp}$$

b. Sesudah

$$\mu x = \frac{0,986 \cdot 1,10}{1 \cdot 1} 1 = 1,0846 \text{ cp}$$

Kadar Air

a. Tekanan 2 bar

- Plate I

$$\begin{aligned} \text{Kadar Air} &= \frac{1080,25 - 880,12}{1080,25} \times 100 \% \\ &= 18,52 \% \end{aligned}$$

- Plate II

$$\begin{aligned} \text{Kadar Air} &= \frac{770,44 - 722,61}{770,44} \times 100 \% \\ &= 8,32\% \end{aligned}$$

- Plate III

$$\begin{aligned} \text{Kadar Air} &= \frac{700,64 - 660,23}{700,64} \times 100 \% \\ &= 57,11\% \end{aligned}$$

$$= 7,57 \%$$

b. Tekanan 4 bar

- Plate I

$$\begin{aligned} \text{Kadar Air} &= \frac{1060,23 - 865,15}{1060,23} \times 100 \% \\ &= 18,32\% \end{aligned}$$

- Plate II

$$\begin{aligned} \text{Kadar Air} &= \frac{851,21 - 780,32}{851,21} \times 100 \% \\ &= 6,20 \% \end{aligned}$$

- Plate III

$$\begin{aligned} \text{Kadar Air} &= \frac{801,12 - 740,40}{801,12} \times 100 \% \\ &= 5,76 \% \end{aligned}$$