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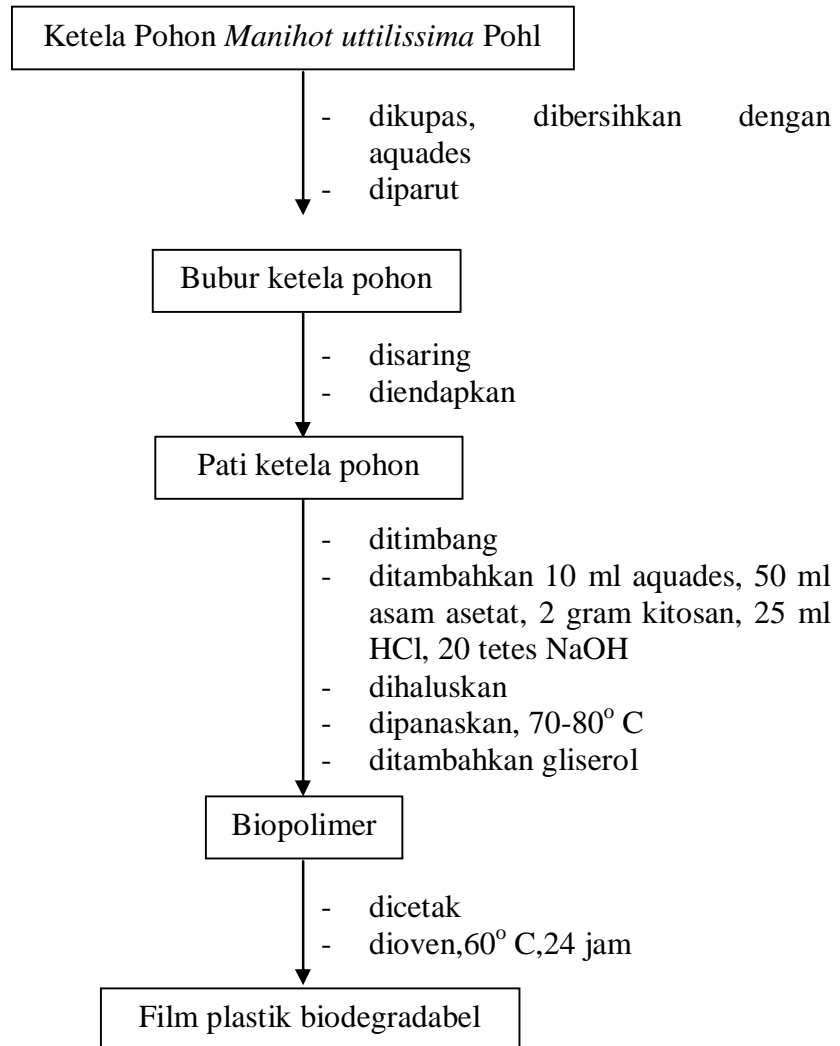
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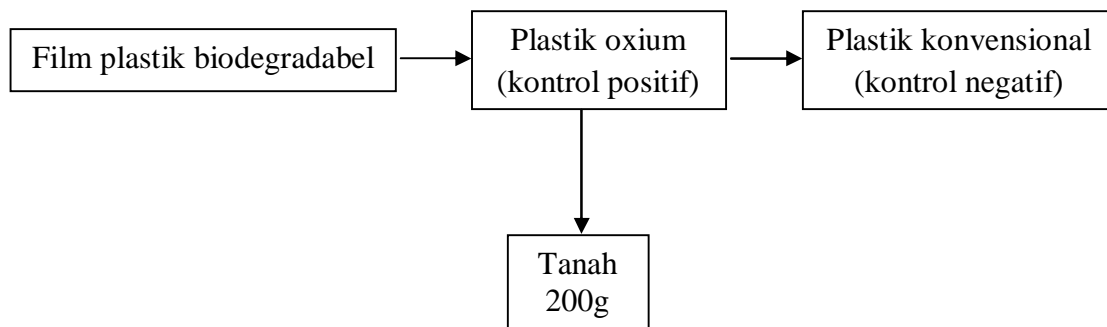
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LAMPIRAN SKEMA KERJA

- Pembuatan Film Plastik Biodegradabel



- Uji Biodegradasi



LAMPIRAN DATA

Pengukuran Ketebalan Film Plastik

A. - Film plastik biodegradabel

$$\begin{aligned} X_1 &= S_n + S_u \\ &= 0 + (18 \times 0.05) \\ &= 0.9 \text{ mm} \end{aligned}$$

$$\begin{aligned} X_2 &= S_n + S_u \\ &= 0 + (14 \times 0.05) \\ &= 0.7 \text{ mm} \end{aligned}$$

$$\begin{aligned} X_3 &= S_n + S_u \\ &= 0 + (9 \times 0.05) \\ &= 0.45 \text{ mm} \end{aligned}$$

$$\begin{aligned} \sum X &= \frac{X_1 + X_2 + X_3}{3} \\ &= \frac{0.9 + 0.7 + 0.45}{3} \\ &= 0.68 \text{ mm} \end{aligned}$$

- Standar Deviasi

$$\begin{aligned} \Delta D &= \frac{1}{n} \sqrt{\frac{n (\sum X_i^2) - (\sum \bar{X}_i)^2}{n-1}} \\ &= \frac{1}{3} \sqrt{\frac{3 ((0.9)^2 + (0.7)^2 + (0.45)^2) - (0.9 + 0.7 + 0.45)^2}{3-1}} \\ &= \frac{1}{3} \sqrt{\frac{3 ((0.81) + (0.49) + (0.2045)) - (2.05)^2}{2}} \end{aligned}$$

$$= \frac{1}{3} \frac{\sqrt{3(1,5025) - (4,2025)}}{2}$$

$$= \frac{1}{3} \frac{\sqrt{4,5025 - 4,2025}}{2}$$

$$= \frac{1}{3} \frac{\sqrt{0,305}}{2}$$

$$= \frac{1}{3} \sqrt{0,1525}$$

$$\surd = \frac{1}{3} \cdot 0,39$$

$$= 0,13$$

B. - Plastik oxium

$$\begin{aligned} X_1 &= S_n + S_u \\ &= 0 + (10 \times 0,05) \\ &= 0,5 \text{ mm} \end{aligned}$$

$$\begin{aligned} X_2 &= S_n + S_u \\ &= 0 + (10 \times 0,05) \\ &= 0,5 \text{ mm} \end{aligned}$$

$$\begin{aligned} X_3 &= S_n + S_u \\ &= 0 + (10 \times 0,05) \\ &= 0,5 \text{ mm} \end{aligned}$$

$$\sum X = \frac{X_1 + X_2 + X_3}{3}$$

$$= \frac{0.5 + 0.5 + 0.5}{3}$$

$$= 0.5 \text{ mm}$$

- **Standar Deviasi**

$$\begin{aligned}
 \Delta D &= \frac{1}{n} \sqrt{\frac{n (\sum Xi^2) - (\sum \bar{Xi})^2}{n-1}} \\
 &= \frac{1}{3} \sqrt{\frac{3 ((0,5)^2 + (0,5)^2 + (0,5)^2) - (0,5+0,5+0,5)^2}{3-1}} \\
 &= \frac{1}{3} \sqrt{\frac{3 ((0,25) + (0,25) + (0,25)) - (1,75)^2}{2}} \\
 &= \frac{1}{3} \sqrt{\frac{3 (0,75) - (2,25)}{2}} \\
 &= \frac{1}{3} \sqrt{\frac{2,25 - 2,25}{2}} \\
 &= \frac{1}{3} \sqrt{\frac{0,305}{2}} \\
 &= \frac{1}{3} \sqrt{0} \\
 &= 0
 \end{aligned}$$

C. - Plastik konvensional

$$\begin{aligned}
 X_1 &= S_n + S_u \\
 &= 0 + (6 \times 0,05) \\
 &= 0,3 \text{ mm} \\
 X_2 &= S_n + S_u \\
 &= 0 + (6 \times 0,05)
 \end{aligned}$$

$$= 0.3 \text{ mm}$$

$$X_3 = S_n + S_u$$

$$= 0 + (6 \times 0.05)$$

$$= 0.3 \text{ mm}$$

$$\sum X = \frac{X_1 + X_2 + X_3}{3}$$

$$= \frac{0.3 + 0.3 + 0.3}{3}$$

$$= 0.3 \text{ mm}$$

- **Standar Deviasi**

$$\Delta D = \frac{1}{n} \sqrt{\frac{n (\sum Xi^2) - (\sum \bar{Xi})^2}{n-1}}$$

$$= \frac{1}{3} \sqrt{\frac{3 ((0,3)^2 + (0,3)^2 + (0,3)^2) - (0,3+0,3+0,3)^2}{3-1}}$$

$$= \frac{1}{3} \sqrt{\frac{3 ((0,09) + (0,09) + (0,09)) - (0,9)^2}{2}}$$

$$= \frac{1}{3} \sqrt{\frac{3 (0,27) - (0,81)}{2}}$$

$$= \frac{1}{3} \sqrt{\frac{0,81 - 0,81}{2}}$$

$$= \frac{1}{3} \frac{\sqrt{0}}{2}$$

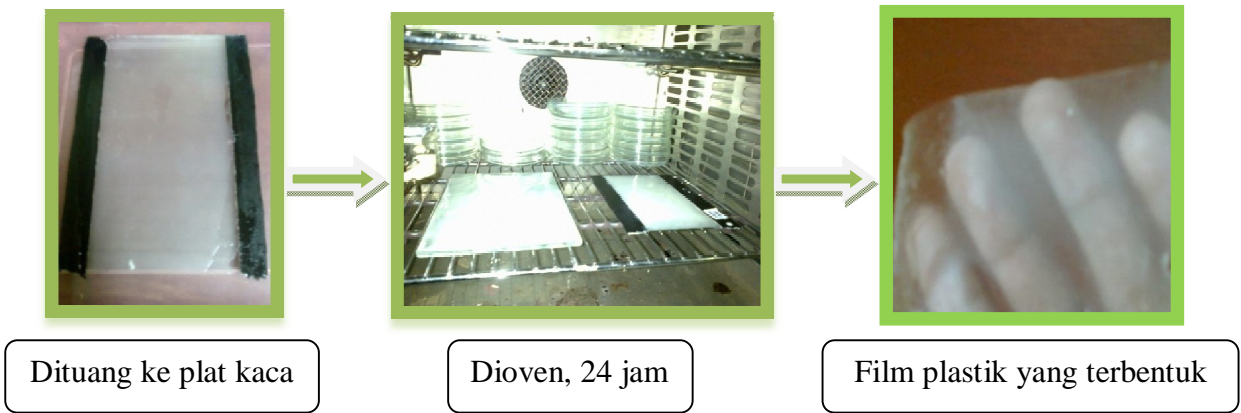
$$= \frac{1}{3} \sqrt{0}$$

$$= 0$$

LAMPIRAN FOTO

A. PEMBUATAN FILM PLASTIK BIODEGRADABEL





B. UJI BIODEGRADABEL

- Uji Degradabilitas dengan Sampel Tanah



C. PENGUKURAN KETEBALAN PLASTIK

