

## PERHITUNGAN DENSITAS

$$Pe = \frac{wd}{\frac{\pi}{4} \cdot d^2 \cdot 2,5} \dots$$

Keterangan:

Re: Dimensi Sampel

Wd: Massa Kering Sampel

V: Volume

1. A: RM

$$Pe = \frac{11,45}{\frac{\pi}{4} \cdot 1,5^2 \cdot 2,5} = 2,59 \text{ (g/cm}^3\text{)}$$

2. B: 3%

$$Pe = \frac{8,20}{\frac{\pi}{4} \cdot 1,5^2 \cdot 2,5} = 1,85 \text{ (g/cm}^3\text{)}$$

3. C: 5%

$$Pe = \frac{7,56}{\frac{\pi}{4} \cdot 1,5^2 \cdot 2,5} = 1,71 \text{ (g/cm}^3\text{)}$$

4. D: 8%

$$Pe = \frac{7,62}{\frac{\pi}{4} \cdot 1,5^2 \cdot 2,5} = 1,65 \text{ (g/cm}^3\text{)}$$

5. E: 10%

$$Pe = \frac{5,57}{\frac{\pi}{4} \cdot 1,5^2 \cdot 2,5} = 1,26 \text{ (g/cm}^3\text{)}$$

## PERHITUNGAN POROSITAS

$$P = \frac{\rho_{\text{teoritis}} - \rho_{\text{percobaan}}}{\rho_{\text{teoritis}}} \times 100\%$$

Keterangan:

$\rho_{\text{teoritis}}$ : teoritis 1%

$\rho_{\text{percobaan}} = \rho_e = \text{Densitas}$

1. A: RM

$$P = \frac{2,7 - 2,59}{2,7} \times 100\% = 4,07\%$$

2. B: 3%

$$P = \frac{2,7 - 1,85}{2,7} \times 100\% = 31,48\%$$

3. C: 5%

$$P = \frac{2,7 - 1,71}{2,7} \times 100\% = 36,66\%$$

4. D: 8%

$$P = \frac{2,7 - 1,65}{2,7} \times 100\% = 38,88\%$$

5. E: 10%

$$P = \frac{2,7 - 1,26}{2,7} \times 100\% = 52,22\%$$

1. Kurva beban pemamatan

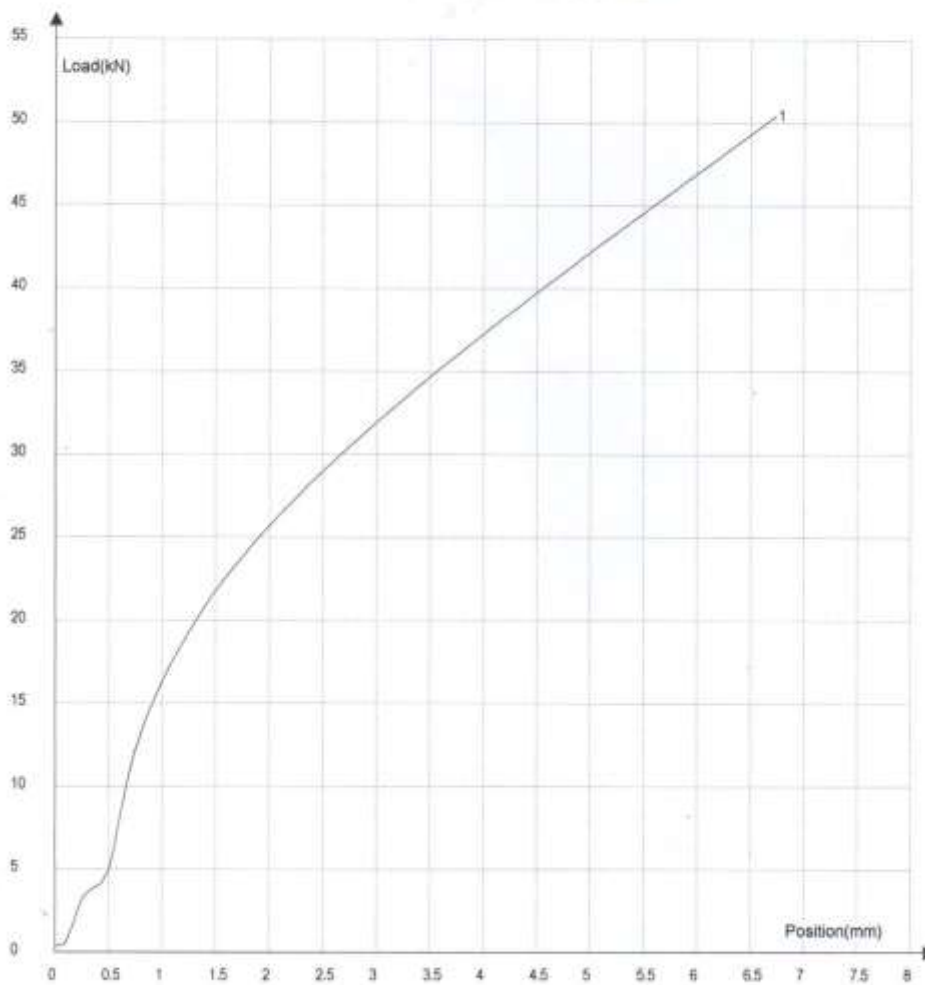
a. Variasi fraksi massa  $\text{CaCO}_3$  sebesar 0%

### Compression Test Testing Report

Standard: ASTM E910

Name	d	So	Fo	Rm
ID	mm	mm <sup>2</sup>	kN	MPa
NO.1	15.00	176.71	50.43	285.37

0%



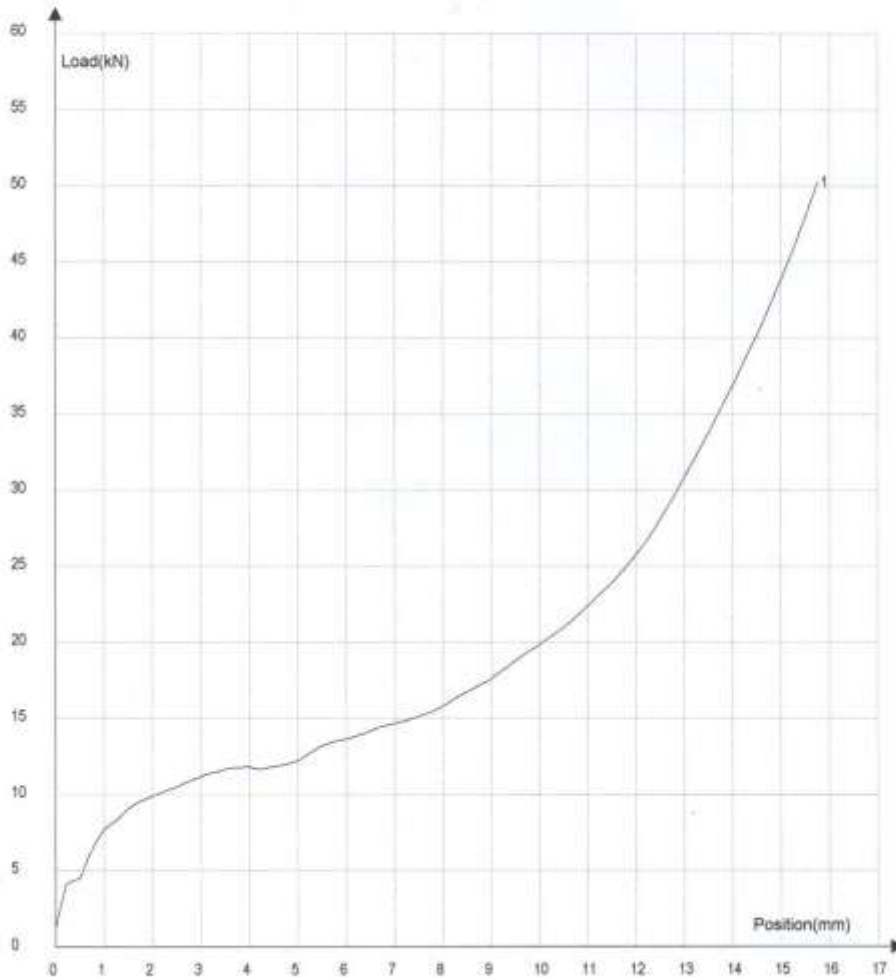
b. Variasi fraksi massa CaCO<sub>3</sub> sebesar 3%

### Compression Test Testing Report

Standard: ASTM E910

Name	d	So	Fo	Rm
ID	mm	mm <sup>2</sup>	kN	MPa
NO.1	15.00	176.71	50.26	284.41

3%



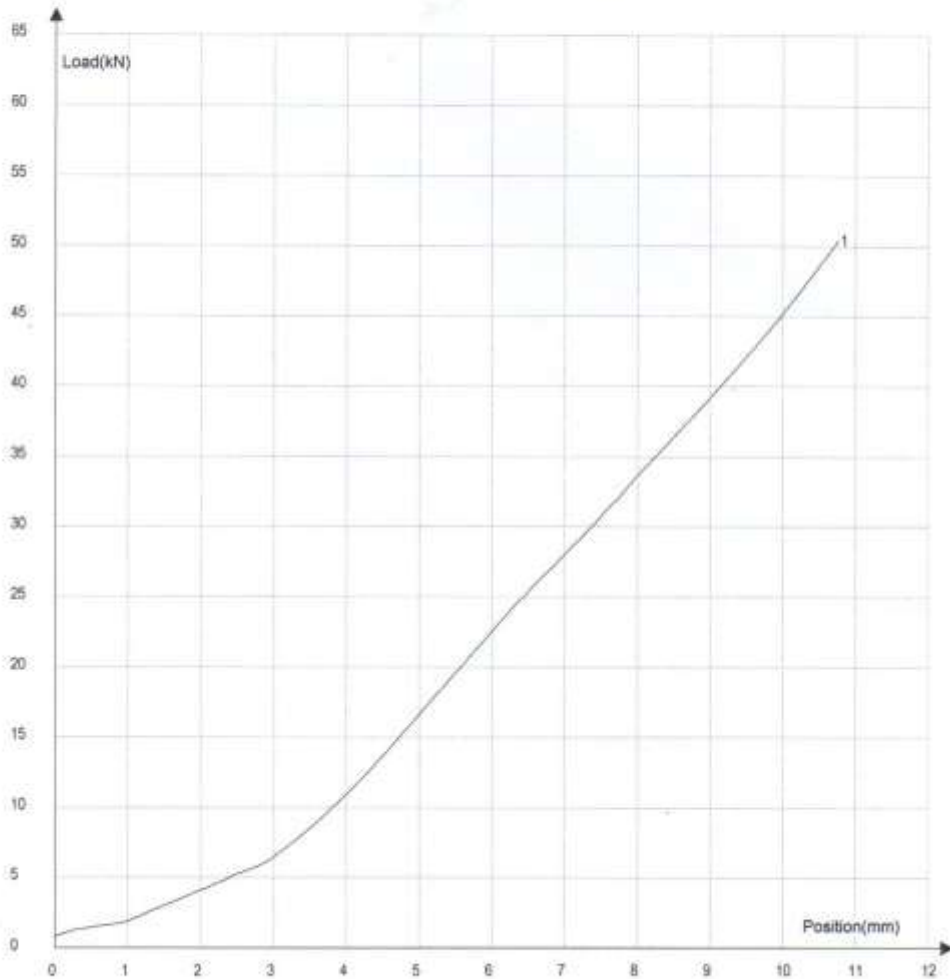
c. Variasi fraksi massa  $\text{CaCO}_3$  sebesar 5%

### Compression Test Testing Report

Standard: ASTM E910

Name	d	So	Fo	Rm
ID	mm	mm <sup>2</sup>	kN	MPa
NO.1	15.00	176.71	50.40	285.19

5%



Tester:

Audit:

1/1

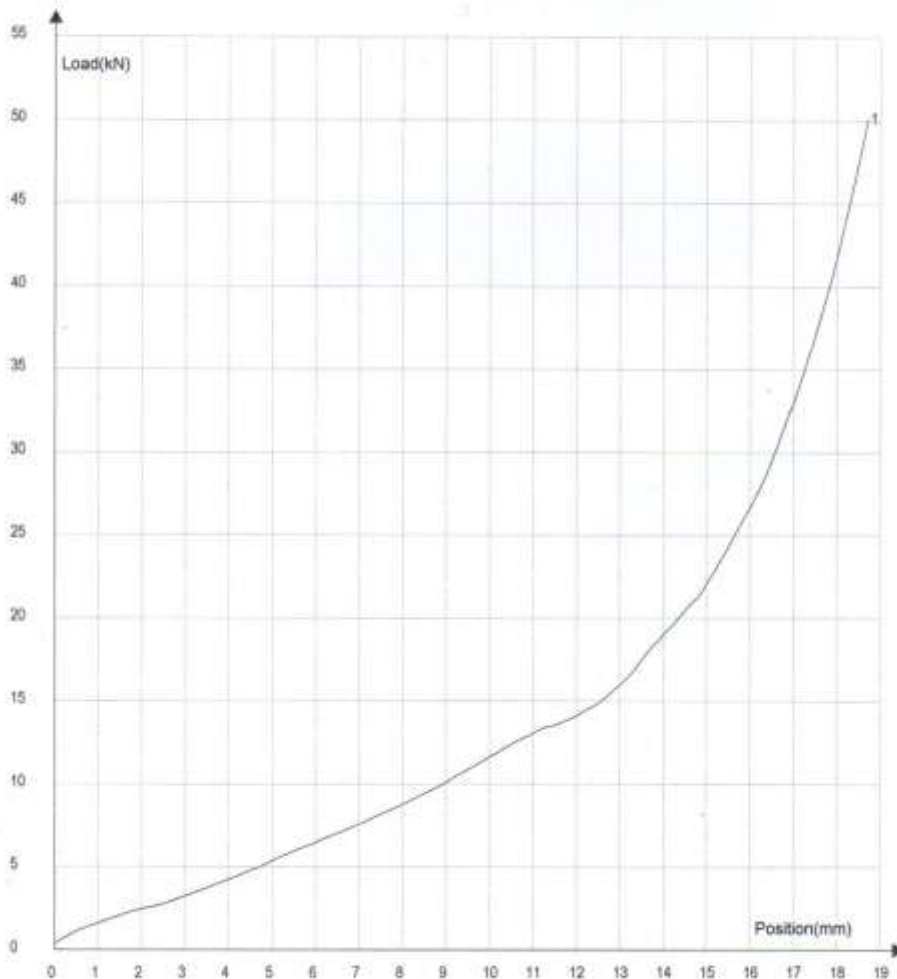
d. Variasi fraksi massa  $\text{CaCO}_3$  sebesar 8%

### Compression Test Testing Report

Standard: ASTM E910

Name	d	So	Fo	Rm
ID	mm	mm <sup>2</sup>	kN	MPa
NO.1	15.00	176.71	50.14	283.71

8%



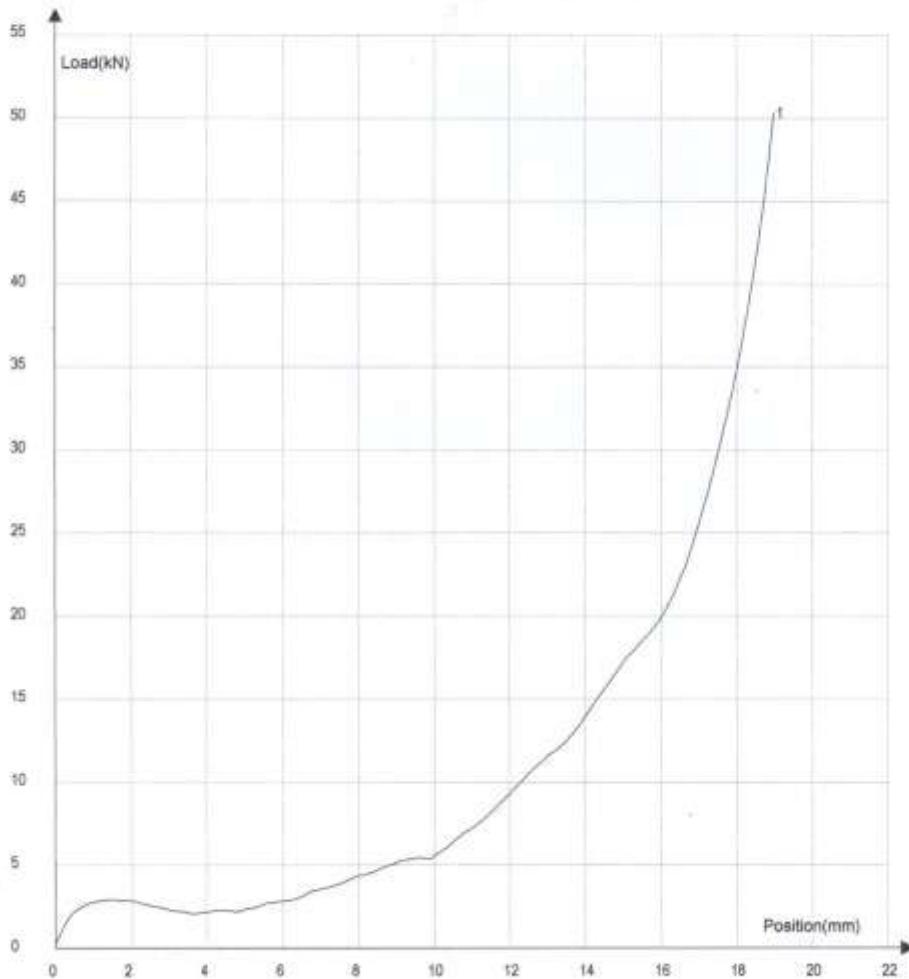
e. Variasi fraksi massa  $\text{CaCO}_3$  sebesar 10%

### Compression Test Testing Report

Standard: ASTM E910

Name	d	So	Fo	Rm
ID	mm	mm <sup>2</sup>	kN	MPa
NO.1	15.00	176.71	50.33	284.63

10% I



Tester:

Audit:

1/1