

LAPIRAN 2
DATA PEMADATAN
(PENDAHULUAN)

1. Pemadatan Tanah Asli
2. Pemadatan Tanah Asli + 5% Abu Sekam Padi
3. Pamadatan Tanah Asli + 6% Abu Sekam Padi
4. Pemadatan Tanah Asli + 6,5% Abu Sekam Padi



1. Pemadatan Tanah Asli

Berat Mould = 2980 gr

Diameter sampel = 15,5 cm

Tinggi sampel = 11,3 cm

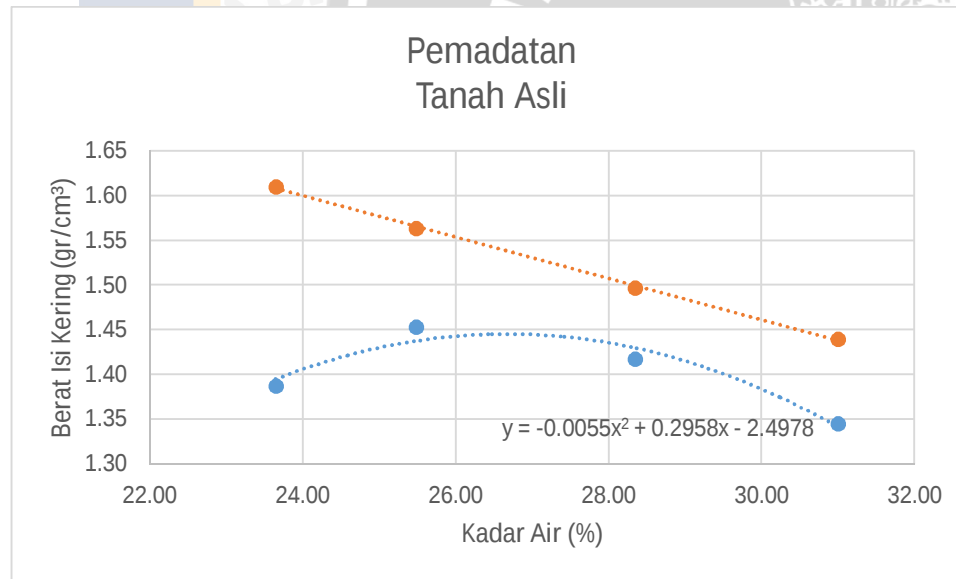
Penambahan Air	ml	23%			26%			29%			32%		
		1	2	3	1	2	3	1	2	3	1	2	3
Berat Cawan	gr	8.20	8.10	7.80	7.80	8.20	8.20	7.80	8.10	8.10	8.30	8.50	7.90
Berat Tanah Basah + Cawan	gr	23.60	27.90	30.10	20.80	23.80	18.90	22.00	26.50	25.40	22.30	18.80	20.80
Berat Tanah Kering + Cawan	gr	20.70	24.00	25.90	18.10	20.60	16.80	18.80	22.50	21.60	19.10	16.40	17.60
Berat Air	gr	2.90	3.90	4.20	2.70	3.20	2.10	3.20	4.00	3.80	3.20	2.40	3.20
Berat Tanah Kering	gr	12.50	15.90	18.10	10.30	12.40	8.60	11.00	14.40	13.50	10.80	7.90	9.70
Kadar Air	%	23.20	24.53	23.20	26.21	25.81	24.42	29.09	27.78	28.15	29.63	30.38	32.99
Kadar Air Rata-rata	%	23.64			25.48			28.34			31.00		

Density

Penambahan Air	ml	23%	26%	29%	32%
Berat Cetakan	gr	2980.00	2980.00	2980.00	2980.00
Berat Tanah Basah + Cetakan	gr	6640.00	6870.00	6860.00	6740.00
Berat Tanah Basah	gr	3660.00	3890.00	3880.00	3760.00
Isi Cetakan	cm ³	2133.08	2133.08	2133.08	2133.08
Berat Isi Basah	gr/cm ³	1.72	1.82	1.82	1.76
Berat Isi Kering	gr/cm ³	1.39	1.45	1.42	1.35

Zero Air Void

Penambahan Air	ml	23%	26%	29%	32%
Kadar Air	%	23.64	25.48	28.34	31.00
Gs		2.60	2.60	2.60	2.60
Berat Jenis Air	gr/cm ³	1.00	1.00	1.00	1.00
Berat Jenis Air (ZAV)	gr/cm ³	1.61	1.56	1.50	1.44



$$y = -0,005 x^2 + 0,2958 x + 2,4978$$

$$dy/dx = -0,011 x + 0,2958$$

$$x = 26,8909\%$$

$$y_d = 1,4794 \text{ gr/cm}^3$$

2. Pemadatan Tanah Asli + 5% Abu Sekam Padi

Berat Mould = 2600 gr

Diameter sampel = 15,5 cm

Tinggi sampel = 11,3 cm

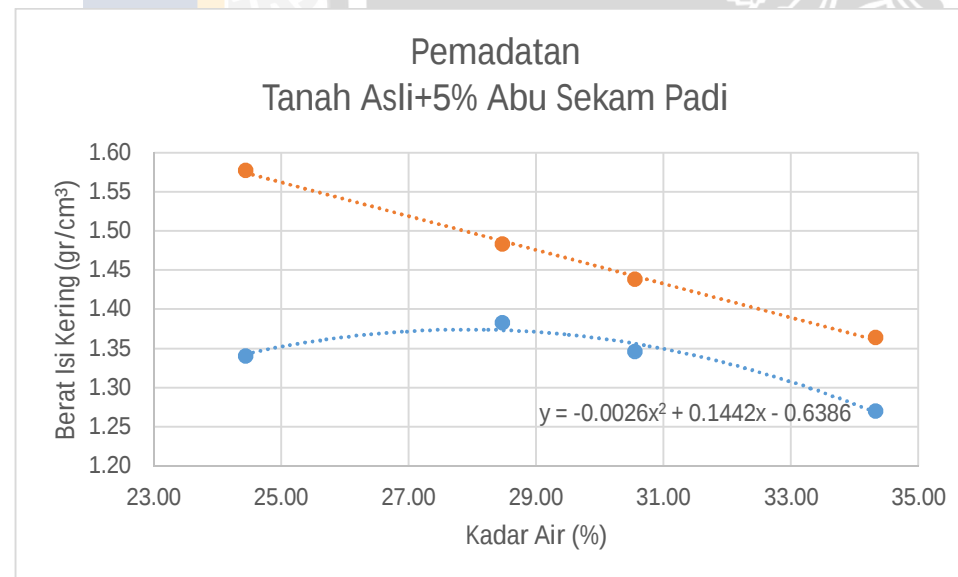
Penambahan Air	ml	24%			27%			30%			33%		
		1	2	3	1	2	3	1	2	3	1	2	3
Berat Cawan	gr	5.80	4.20	5.70	8.20	8.20	8.50	8.30	8.20	8.20	8.10	8.30	7.80
Berat Tanah Basah + Cawan	gr	19.70	19.90	21.40	30.90	24.60	26.10	28.10	30.80	31.50	30.40	28.30	24.60
Berat Tanah Kering + Cawan	gr	17.00	16.80	18.30	25.70	21.00	22.30	23.10	25.80	26.20	24.70	23.20	20.30
Berat Air	gr	2.70	3.10	3.10	5.20	3.60	3.80	5.00	5.00	5.30	5.70	5.10	4.30
Berat Tanah Kering	gr	11.20	12.60	12.60	17.50	12.80	13.80	14.80	17.60	18.00	16.60	14.90	12.50
Kadar Air	%	24.11	24.60	24.60	29.71	28.13	27.54	33.78	28.41	29.44	34.34	34.23	34.40
Kadar Air Rata-rata	%	24.44			28.46			30.55			34.32		

Density

Penambahan Air	ml	24%	27%	30%	33%
Berat Cetakan	gr	2600.00	2600.00	2600.00	2600.00
Berat Tanah Basah + Cetakan	gr	6160.00	6390.00	6350.00	6240.00
Berat Tanah Basah	gr	3560.00	3790.00	3750.00	3640.00
Isi Cetakan	cm ³	2133.08	2133.08	2133.08	2133.08
Berat Isi Basah	gr/cm ³	1.67	1.78	1.76	1.71
Berat Isi Kering	gr/cm ³	1.34	1.38	1.35	1.27

Zero Air Void

Penambahan Air	ml	24%	27%	30%	33%
Kadar Air	%	24.44	28.46	30.55	34.32
Gs		2.57	2.57	2.57	2.57
Berat Jenis Air	gr/cm ³	1.00	1.00	1.00	1.00
Berat Jenis Air (ZAV)	gr/cm ³	1.58	1.48	1.44	1.37



$$y = -0,0026 x^2 + 0,1442 x - 0,6386$$

$$dy/dx = -0,0052 x + 0,1442$$

$$x = 27,7308\%$$

$$y_d = 1,3608 \text{ gr/cm}^3$$

3. Pemadatan Tanah Asli + 6% Abu Sekam Padi

Berat Mould = 2680 gr

Diameter sampel = 15,5 cm

Tinggi sampel = 11,3 cm

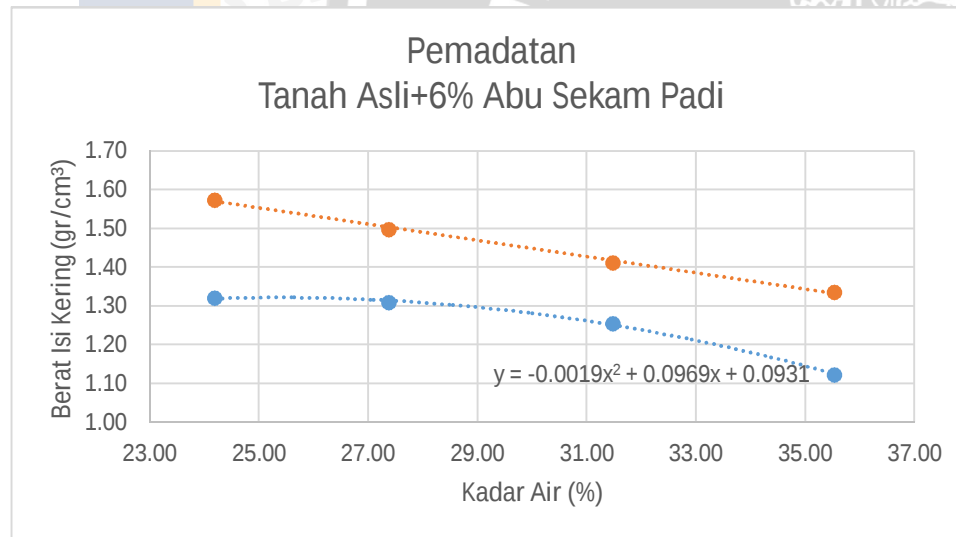
Penambahan Air	ml	21%			24%			27%			30%		
		1	2	3	1	2	3	1	2	3	1	2	3
Berat Cawan	gr	5.30	4.20	5.70	4.30	4.30	6.00	8.10	8.30	8.20	8.10	8.20	8.20
Berat Tanah Basah + Cawan	gr	15.00	16.10	16.00	29.10	30.20	32.10	24.30	19.60	17.20	40.30	29.50	30.90
Berat Tanah Kering + Cawan	gr	13.00	13.80	14.10	23.80	24.40	26.70	20.50	16.90	15.00	32.10	23.90	24.80
Berat Air	gr	2.00	2.30	1.90	5.30	5.80	5.40	3.80	2.70	2.20	8.20	5.60	6.10
Berat Tanah Kering	gr	7.70	9.60	8.40	19.50	20.10	20.70	12.40	8.60	6.80	24.00	15.70	16.60
Kadar Air	%	25.97	23.96	22.62	27.18	28.86	26.09	30.65	31.40	32.35	34.17	35.67	36.75
Kadar Air Rata-rata	%		24.18			27.37			31.46			35.53	

Density

Penambahan Air	ml	21%	24%	27%	30%
Berat Cetakan	gr	2680.00	2680.00	2920.00	2680.00
Berat Tanah Basah + Cetakan	gr	6180.00	6240.00	6440.00	5930.00
Berat Tanah Basah	gr	3500.00	3560.00	3520.00	3250.00
Isi Cetakan	cm ³	2133.08	2133.08	2133.08	2133.08
Berat Isi Basah	gr/cm ³	1.64	1.67	1.65	1.52
Berat Isi Kering	gr/cm ³	1.32	1.31	1.26	1.12

Zero Air Void

Penambahan Air	ml	21%	24%	27%	30%
Kadar Air	%	24.18	27.37	31.46	35.53
Gs		2.54	2.54	2.54	2.54
Berat Jenis Air	gr/cm ³	1.00	1.00	1.00	1.00
Berat Jenis Air (ZAV)	gr/cm ³	1.57	1.50	1.41	1.34



$$Y = -0,0019 x^2 + 0,0969 x + 0,0931$$

$$dy/dx = -0,0038 x + 0,0969$$

$$x = 25,5000 \%$$

$$y_d = 1,3286 \text{ gr/cm}^3$$

4. Pemadatan Tanah Asli + 6,5% Abu Sekam Padi

Berat Mould = 2920 gr

Diameter sampel = 15,5 cm

Tinggi sampel = 11,3 cm

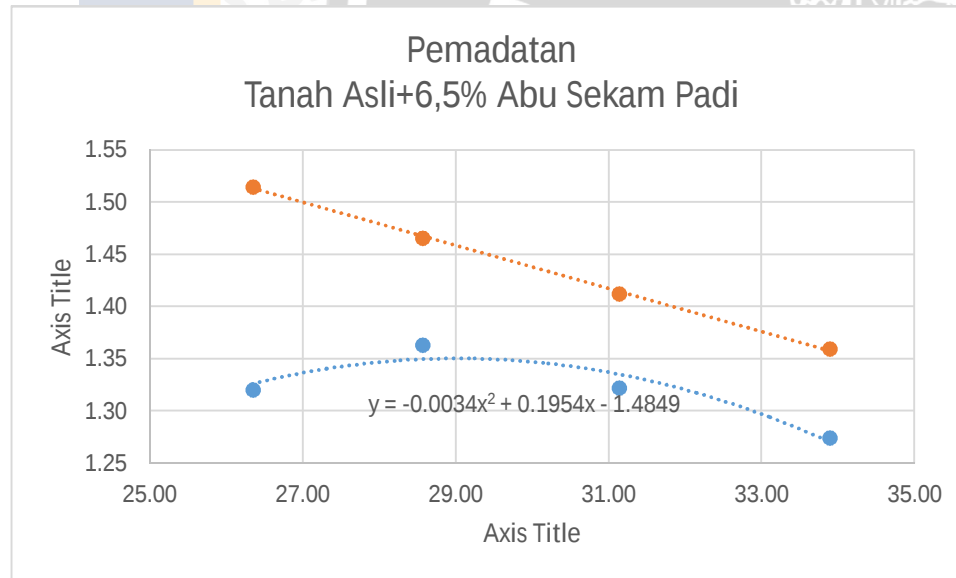
Penambahan Air	ml	24%			27%			30%			33%		
		1	2	3	1	2	3	1	2	3	1	2	3
Berat Cawan	gr	8.20	7.90	8.10	8.30	8.50	8.10	8.20	7.80	7.80	8.10	8.30	8.30
Berat Tanah Basah + Cawan	gr	24.87	23.40	24.70	19.80	26.10	19.70	18.90	22.90	18.20	29.70	28.10	23.40
Berat Tanah Kering + Cawan	gr	21.30	20.20	21.30	17.10	22.30	17.20	16.30	19.30	15.80	24.30	23.00	19.60
Berat Air	gr	3.57	3.20	3.40	2.70	3.80	2.50	2.60	3.60	2.40	5.40	5.10	3.80
Berat Tanah Kering	gr	13.10	12.30	13.20	8.80	13.80	9.10	8.10	11.50	8.00	16.20	14.70	11.30
Kadar Air	%	27.25	26.02	25.76	30.68	27.54	27.47	32.10	31.30	30.00	33.33	34.69	33.63
Kadar Air Rata-rata	%	26.34			28.56			31.13			33.89		

Density

Penambahan Air	ml	24%	27%	30%	33%
Berat Cetakan	gr	2920.00	2920.00	2920.00	2920.00
Berat Tanah Basah + Cetakan	gr	6480.00	6660.00	6620.00	6560.00
Berat Tanah Basah	gr	3560.00	3740.00	3700.00	3640.00
Isi Cetakan	cm ³	2133.08	2133.08	2133.08	2133.08
Berat Isi Basah	gr/cm ³	1.67	1.75	1.73	1.71
Berat Isi Kering	gr/cm ³	1.32	1.36	1.32	1.27

Zero Air Void

Penambahan Air	ml	24%	27%	30%	33%
Kadar Air	%	26.34	28.56	31.13	33.89
Gs		2.52	2.52	2.52	2.52
Berat Jenis Air	gr/cm ³	1.00	1.00	1.00	1
Berat Jenis Air (ZAV)	gr/cm ³	1.52	1.47	1.41	1.36



$$y = -0,0034 x^2 + 0,1954 x - 1,4849$$

$$dy/dx = -0,0068 x + 0,1954$$

$$x = 28,7353\%$$

$$y_d = 1,3225 \text{ gr/cm}^3$$