

LAMPIRAN

Lampiran 1 Data hasil pengujian kekuatan dan mulur serat

No	Kek (kg)	Kek (N)	berat (mg)	panjang (cm)	Kehalusan (Tex)	Tenacity (g/tex)	mulur (%)
1	39.598	338.06	22.16	5	4432	8.934566787	7.2
2	30.879	302.82	22.05	5	4410	7.002040816	6
3	25.957	254.55	9.95	5	1990	13.04371859	6.6
4	31.766	311.52	14.59	5	2918	10.88622344	4.2
5	32.652	320.21	25.31	5	5062	6.450414855	5.4
Σ						46.316964488	29.4
\bar{x}						9.263392898	5.88

No	Tenacity (g/tex)	$(x - \bar{x})^2$ Tex
1	8.934566787	0.108126611
2	7.002040816	5.113713238
3	13.04371859	14.290862337
4	10.88622344	2.633578968
5	6.450414855	7.912845470
Σ	46.316964488	30.059126624
\bar{x}	9.263392898	6.0118253248

- Standar Deviasi kekuatan

$$S = \sqrt{\frac{\sum(X_i - \bar{X})^2}{n-1}} = \sqrt{\frac{30.059126624}{4}}$$

$$= 2.741310207$$

- Koefisien Variasi kekuatan

$$CV = \frac{SD}{\bar{X}} \times 100 \%$$

$$= \frac{2.741310207}{9.263392898} \times 100 \% = 29.59 \%$$

No	mulur (%)	$(x - \bar{x})^2$
1	7.2	1.742
2	6	0.014
3	6.6	0.518
4	4.2	0.822
5	5.4	2.822
Σ	29.4	5.326
\bar{x}	5.88	1.0652

- **Standar Deviasi Mulur Serat**

$$S = \sqrt{\frac{\sum(X_i - \bar{X})^2}{n-1}} = \sqrt{\frac{5.326}{4}}$$

$$= 1.153$$

- **Koefisien Variasi Mulur Serat**

$$CV = \frac{SD}{\bar{X}} \times 100 \%$$

$$= \frac{1.153}{5.88} \times 100 \% = 19.26 \%$$

Lampiran 2 Data hasil pengujian panjang berkas serat

No	Panjang (cm)	Panjang (cm)x80%	$(x - \bar{x})^2$
1	46.6	37.28	70.728
2	30.4	24.3	20.884
3	30.6	24.48	19.272
4	49.4	39.52	113.422
5	42.1	33.68	23.136
6	29.1	23.28	31.248
7	24.5	19.6	85.932
Σ		202.14	364.622
\bar{x}		28.87	52.088

- **Standar Deviasi Panjang Serat**

$$S = \sqrt{\frac{\sum(X_i - \bar{X})^2}{n-1}} = \sqrt{\frac{364.622}{6}}$$

$$= 7.795$$

Koefisien Variasi Panjang Serat

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$$CV = \frac{SD}{\bar{X}} \times 100 \%$$

$$= \frac{7.795}{28.87} \times 100 \% = 27.01 \%$$

Lampiran 3 Data hasil Pengujian Kekhalusan Serat

No	Berat (g)	Panjang(cm)	jmlh serat	Tex	$(x - \bar{x})^2$
1	0.0154	3	150	3.42	0.00694
2	0.0184	3	150	3.83	0.10671
3	0.0147	3	150	3.26	0.05921
				10.51	0.17286
				3.503	0.05762

- **Standar Deviasi Kekhalusan Serat**

$$S = \sqrt{\frac{\sum(X_i - \bar{X})^2}{n-1}} = \sqrt{\frac{0.17286}{2}}$$

$$= 0.293989$$

- **Koefisien Variasi Kekhalusan Serat**

$$CV = \frac{SD}{\bar{X}} \times 100 \%$$

$$= \frac{0.293989}{3.503} \times 100 \% = 15.71 \%$$

Lampiran 4 Data hasil pengujian *Moisture Regain* dan *Moisture Content*

Berat botol (g)	berat serat (g)	berat basah (g)	berat kering 1 (g)	berat kering 2 (g)	selisih 1&2 (%)	MC (%)	MR (%)
85.582	3.029	88.611	88.265	88.257	0.009064539	0.401	0.399
			2.732	2.725			

$$MR = \frac{BeratBasah - BeratKering}{BeratKering} \cdot 100\%$$

$$= \frac{3.029 - 2.725}{3.029} \times 100\% = 11.15\%$$

$$MC = \frac{BeratBasah - BeratKering}{BeratBasah} \cdot 100\%$$

$$= \frac{3.029 - 2.725}{2.725} \times 100\% = 10,04\%$$

Lampiran 5 Data hasil pengujian Koefisien Friksi Serat

No	Koefisien Friksi	$(x - \bar{x})^2$
1	0,52	0,0158
2	0,31	0,0071
3	0,29	0,0108
4	0,47	0,0057
5	0,39	0,0001
Σ	1,98	0,0395
\bar{x}	0,394	0,0079

- Standar Deviasi Koefisien Friksi Serat

$$S = \sqrt{\frac{\sum(X_i - \bar{X})^2}{n-1}} = \sqrt{\frac{0.0395}{4}}$$

$$= 0.009875$$

- Koefisien Variasi Koefisien Friksi Serat

$$CV = \frac{SD}{\bar{X}} \times 100 \%$$

$$= \frac{0.009875}{0.394} \times 100 \% = 2,51 \%$$

