Lampiran 1 Tabel Hasil Uji Tarik Serat Tunggal Tanpa Perlakuan

SERAT WARU TANPA PERLAKUAN ALKALI NaOH											
SAMPEL	TEBAL (µm)			RATA2	WAKTU	LEBAR	PANJANG	PERTAMBAHAN PANJANG	PANJANG AKHIR	F.MAX	Tegangan
	1	2	3	(µm)	(s)	(mm)	(mm)	(mm)	(mm)	(N)	(MPa)
SW01	66.6	66.2	57.1	63.30	1.81	3	100	0.15	100.15	11.70	61.61137441
SW02	99.8	89.4	110	99.73	1.86	3	100	0.20	100.20	62.94	210.3609626
SW03	107	105	90.4	100.80	1.69	3	100	0.25	100.25	78.11	258.3002646
SW04	96.9	93.5	103	97.80	1.46	3	100	0.15	100.15	75.34	256.7825494
SW05	93	87.9	92.5	91.13	1.95	3	100	0.10	100.10	68.20	249.4513533
RATA-RATA				90.55	1.75	3	100.00	0.170	100.17	59.26	207.30

Lampiran 2 Tabel Hasil Uji Tarik Serat Tunggal Perlakuan 3% NaOH

SERAT WARU DENGAN PERLAKUAN ALKALI NaOH 3%											
SAMPEL	TEBAL (µm)			RATA2	WAKTU	LEBAR	PANJANG	PERTAMBAHAN PANJANG	PANJANG AKHIR	F.MAX	Tegangan
	1	2	3	(µm)	(s)	(mm)	(mm)	(mm)	(mm)	(N)	(MPa)
SW31	89.5	77.1	83.7	83.43	1.60	3	100	0.10	100.10	12.98	51.85777068
SW32	92.1	84.6	88.6	88.43	1.27	3	100	0.15	100.15	51.58	194.4214097
SW33	91.2	94.9	81.9	89.33	1.46	3	100	0.18	100.18	72.67	271.1567164
SW34	96.4	99.5	97.6	97.83	1.32	3	100	0.15	100.15	48.61	165.6218058
SW35	88.1	90.8	98.2	92.37	1.84	3	100	0.12	100.12	41.58	150.0541321
RATA-RATA				90.28	1.50	3	100.00	0.140	100.14	45.48	166.62

Lampiran 3 Tabel Hasil Uji Tarik Serat Tunggal Perlakuan 6% NaOH

SERAT WARU DENGAN PERLAKUAN ALKALI NaOH 6%											
SAMPEL	TEBAL (µm)			RATA2	WAKTU	LEBAR	PANJANG	PERTAMBAHAN PANJANG	PANJANG AKHIR	F.MAX	Tegangan
	1	2	3	(µm)	(s)	(mm)	(mm)	(mm)	(mm)	(N)	(MPa)
SW61	76.7	98.6	95.4	90.23	1.21	3	100	0.15	100.15	9.63	35.57443665
SW62	90.5	87.7	81.6	86.60	1.56	3	100	0.30	100.30	51.44	197.9984604
SW63	107.6	109.6	101.2	106.13	1.31	3	100	0.15	100.15	77.51	243.4359296
SW64	95	97.9	87.4	93.43	1.33	3	100	0.10	100.10	50.46	180.0214056
SW65	81.9	68.5	83.3	77.90	1.36	3	100	0.13	100.13	24.96	106.8035944
RATA-RATA				90.86	1.35	3	100.00	0.166	100.17	42.80	152.77

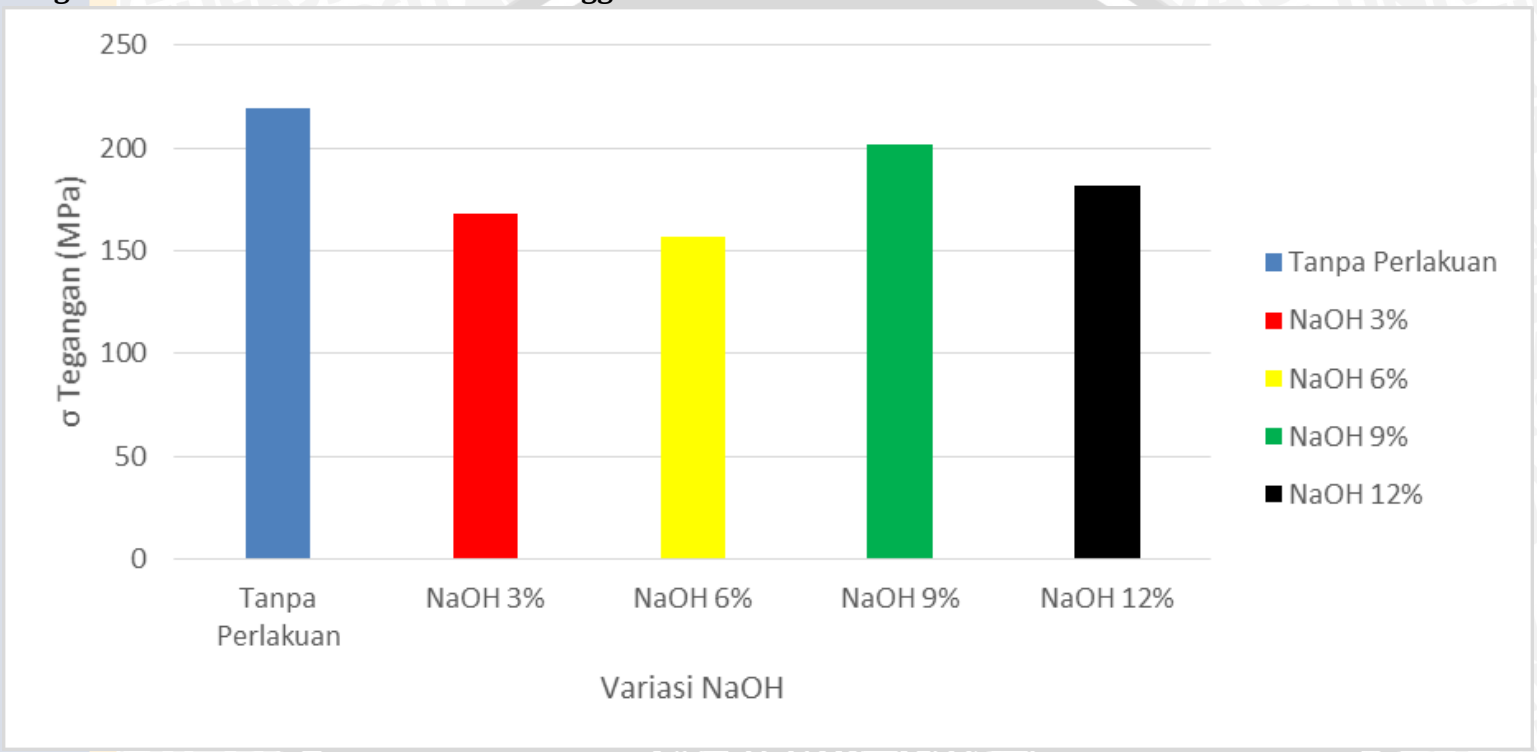
Lampiran 4 Tabel Hasil Uji Tarik Serat Tunggal Perlakuan 9% NaOH

SERAT WARU DENGAN PERLAKUAN ALKALI NaOH 9%											
SAMPEL	TEBAL (µm)			RATA2	WAKTU	LEBAR	PANJANG	PERTAMBAHAN PANJANG	PANJANG AKHIR	F.MAX	Tegangan
	1	2	3	(µm)	(s)	(mm)	(mm)	(mm)	(mm)	(N)	(MPa)
SW91	68.8	73.9	3	74.70	1.10	3	100	0.05	100.05	28.49	127.1307452
SW92	91.5	93.8	3	92.30	1.56	3	100	0.17	100.17	42.54	153.6294691
SW93	93.4	98.6	3	91.27	1.28	3	100	0.16	100.16	78.33	286.0847334
SW94	90.9	94.1	3	90.17	1.36	3	100	0.20	100.20	46.45	171.7190388
SW95	70.5	78.3	3	77.77	1.56	3	100	0.20	100.20	62.38	267.3810544
RATA-RATA				85.24	1.37	3	100.00	0.156	10.16	51.64	201.19

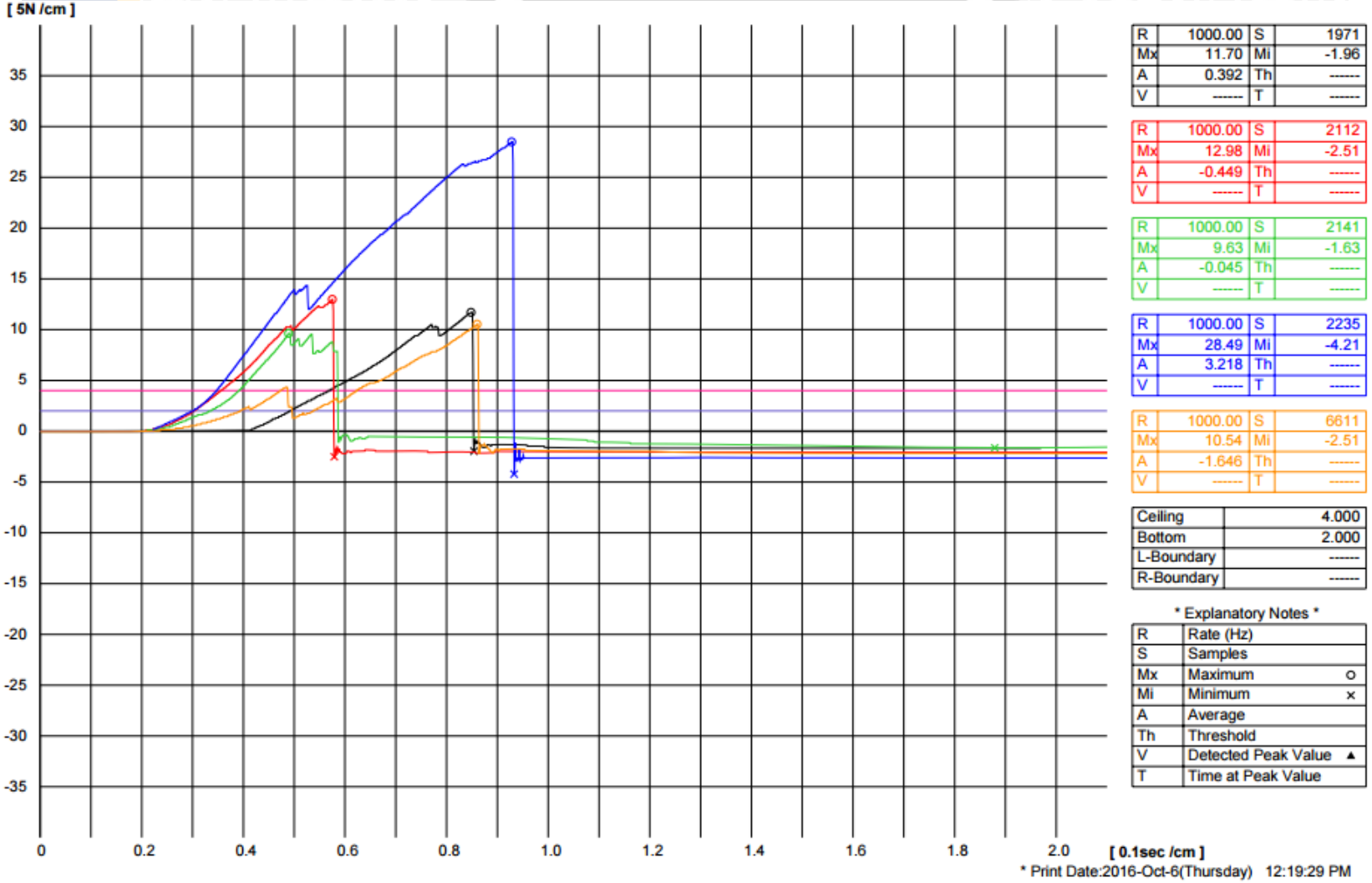
Lampiran 5 Tabel Hasil Uji Tarik Serat Tunggal Perlakuan 12% NaOH

SERAT WARU DENGAN PERLAKUAN ALKALI NaOH 12%											
SAMPEL	TEBAL (µm)			RATA2	WAKTU	LEBAR	PANJANG	PERTAMBAHAN PANJANG	PANJANG AKHIR	F.MAX	Tegangan
	1	2	3	(µm)	(s)	(mm)	(mm)	(mm)	(mm)	(N)	(MPa)
SW121	96.4	79.4	67.4	81.07	1.03	3	100	0.15	100.15	10.54	43.33881579
SW122	90.6	88.9	86.9	88.80	1.42	3	100	0.20	100.20	59.51	223.3858859
SW123	97.2	97.1	99.3	97.87	1.32	3	100	0.17	100.17	79.64	271.253406
SW124	99.7	88.1	94.4	94.07	1.34	3	100	0.17	100.17	44.33	157.0871722
SW125	78.8	83.6	79.1	80.50	1.30	3	100	0.10	100.10	47.52	196.7701863
RATA-RATA				88.46	1.28	3	100.00	0.158	10.16	48.31	178.37

Lampiran 6 Diagram Hasil Kekuatan Tarik Serat Tunggal



Lampiran 7 Contoh Grafik Tegangan Regangan Spesimen 1 Pada Tiap Perlakuan NaOH



R	1000.00	S	1971
Mx	11.70	Mi	-1.96
A	0.392	Th	------
V	------	T	------

R	1000.00	S	2112
Mx	12.98	Mi	-2.51
A	-0.449	Th	------
V	------	T	------

R	1000.00	S	2141
Mx	9.63	Mi	-1.63
A	-0.045	Th	------
V	------	T	------

R	1000.00	S	2235
Mx	28.49	Mi	-4.21
A	3.218	Th	------
V	------	T	------

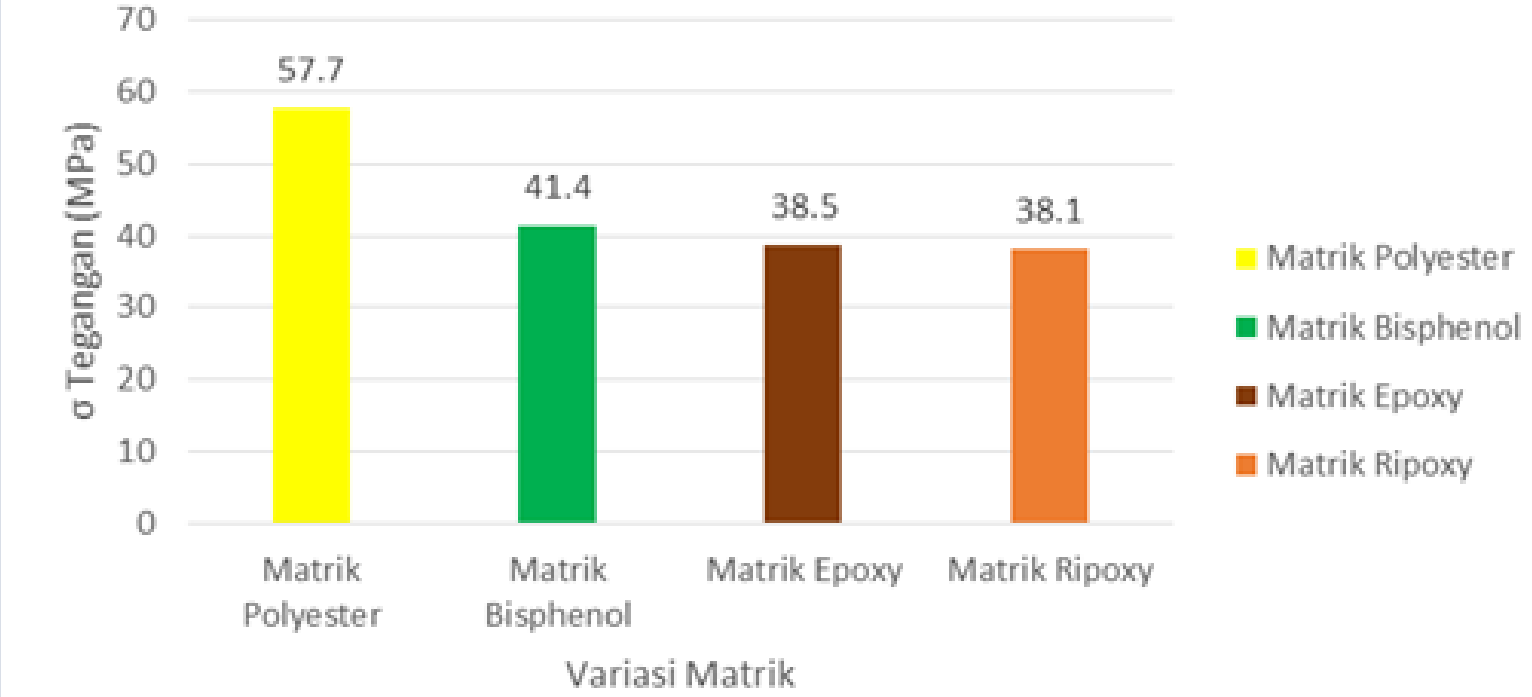
R	1000.00	S	6611
Mx	10.54	Mi	-2.51
A	-1.646	Th	------
V	------	T	------

Ceiling	4.000
Bottom	2.000
L-Boundary	------
R-Boundary	------

* Explanatory Notes *

R	Rate (Hz)	
S	Samples	
Mx	Maximum	o
Mi	Minimum	×
A	Average	
Th	Threshold	
V	Detected Peak Value	▲
T	Time at Peak Value	

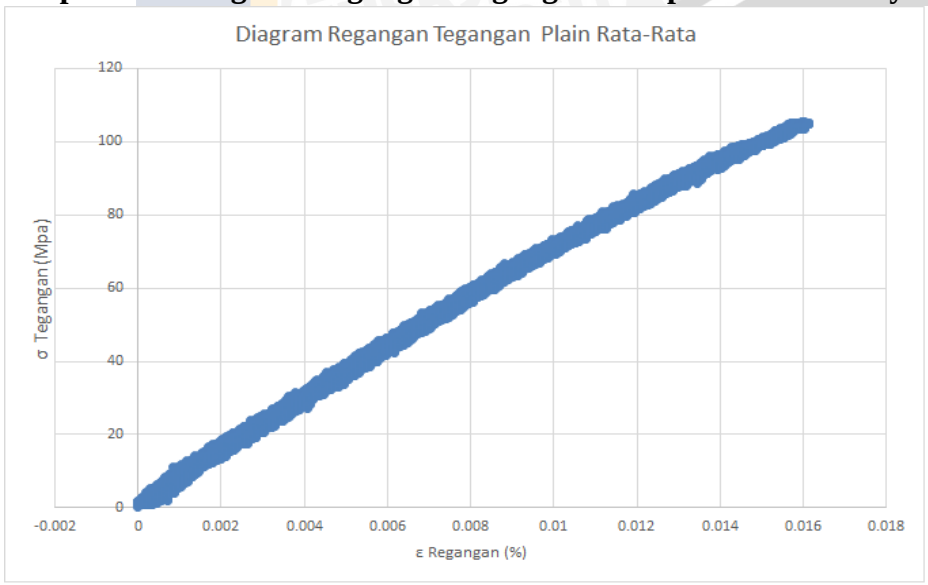
Lampiran 8 Diagram Kekuatan Tarik Matrik

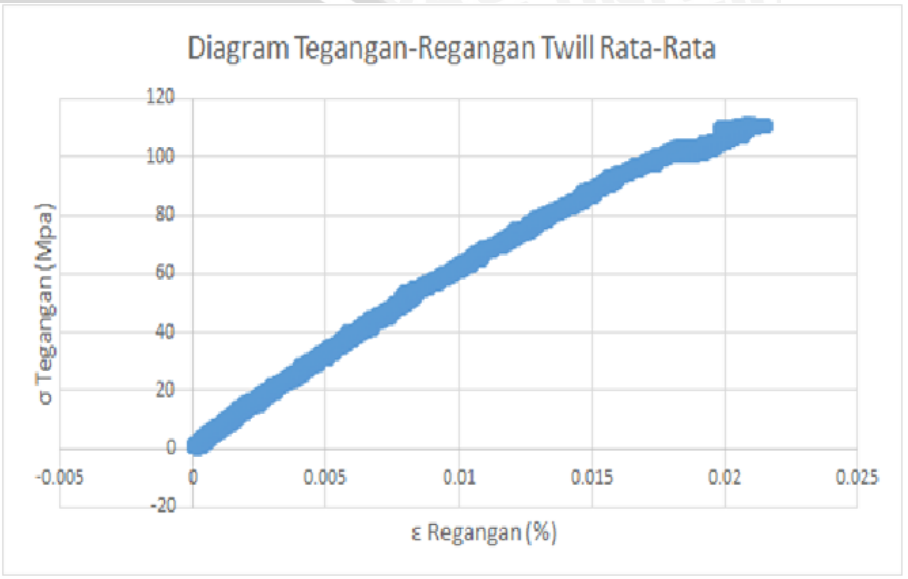


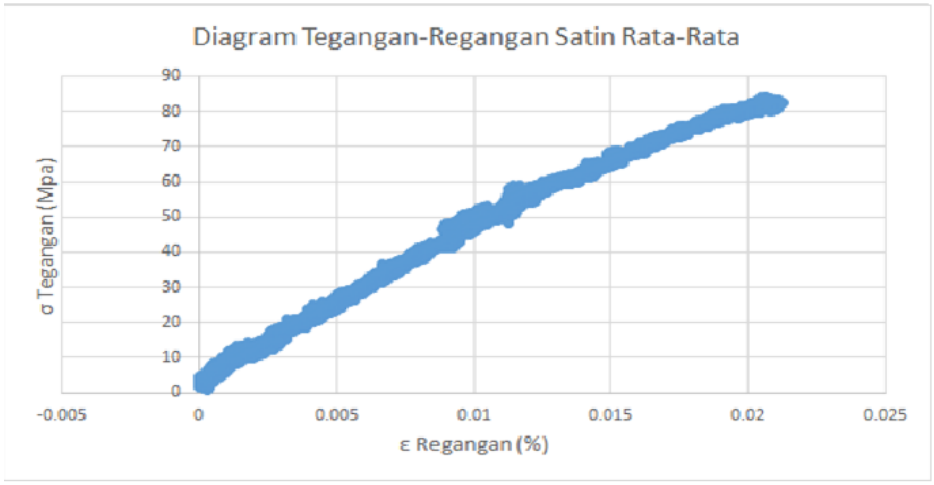
Lampiran 9 Tabel Hasil Uji Tarik Variasi Anyaman

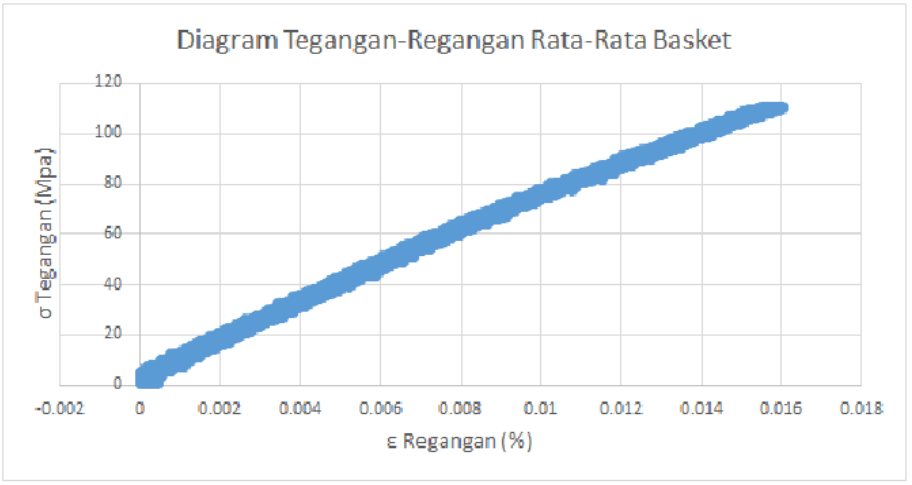
		Regangan	Regangan Rata-Rata	Tegangan (MPa)	Tegangan Rata-Rata (MPa)
Plain	1	0.036545455	0.036393939	98.56771331	105.9873309
	2	0.036242424		113.4069486	
Twill	1	0.054484848	0.045272727	111.7122006	109.6510105
	2	0.036060606		107.5898204	
Satin	1	0.036242424	0.036212121	81.237633	82.69688317
	2	0.036181818		84.15613333	
Basket	1	0.036060606	0.035969697	110.5137529	115.1506909
	2	0.035878788		119.7876289	

Lampiran 10 Diagram Tegangan Regangan Komposit Variasi Anyaman





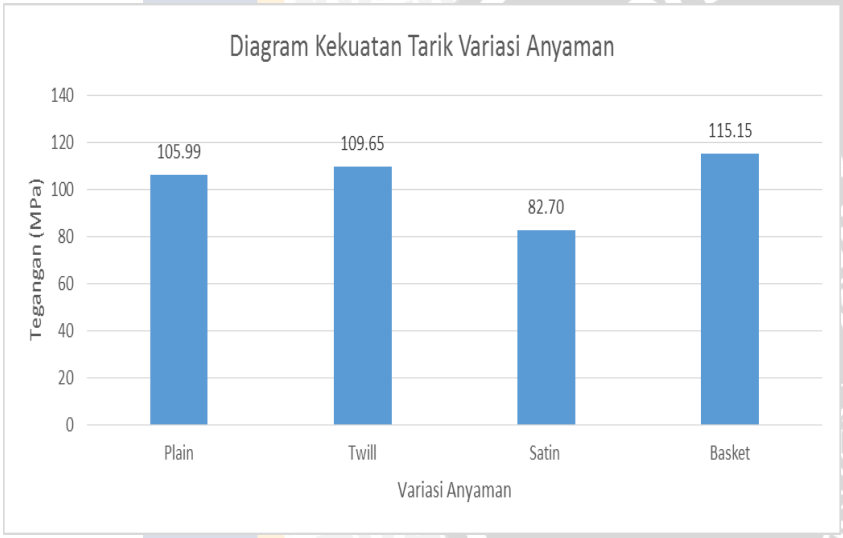


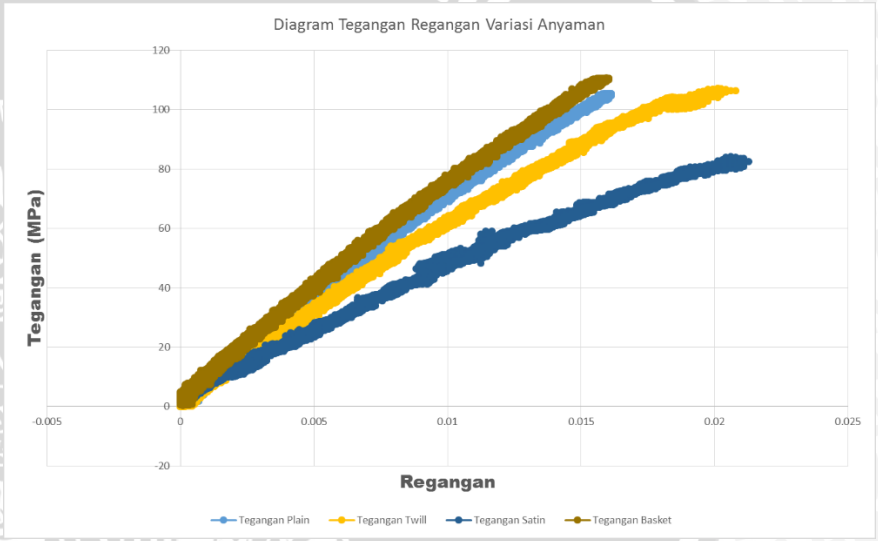


Lampiran 11 Tabel Tegangan Regangan Rata Rata Komposit Variasi Anyaman

		Regangan	Regangan Rata-Rata	Tegangan (MPa)	Tegangan Rata-Rata (MPa)
Plain	1	0.036545455	0.036393939	98.56771331	105.9873309
	2	0.036242424		113.4069486	
Twill	1	0.054484848	0.045272727	111.7122006	109.6510105
	2	0.036060606		107.5898204	
Satin	1	0.036242424	0.036212121	81.237633	82.69688317
	2	0.036181818		84.15613333	
Basket	1	0.036060606	0.035969697	110.5137529	115.1506909
	2	0.035878788		119.7876289	

Lampiran 12 Diagram Kekuatan Tarik Variasi Anyaman dan Grafik Tegangan Regangan Variasi Anyaman





Lampiran 13 Tabel Tegangan Yield dan Modulus Young

NO	Orientasi	Tegangan (Mpa)	Regangan (%)	Tegangan Yield (MPa)	Modulus Young (GPa)
1	Plain	105.99	0.016272727	63.41625207	6.7
2	Twill	109.65	0.020272727	65.31909418	5.5
3	Satin	82.7	0.020454545	54.95625238	4.2
4	Basket	115.5	0.017212121	73.99084785	6.4

Lampiran 14 Tabel Berat Serat, Matrik dan Komposit

Massa	Plain	Twill	Satin	Basket
Massa Serat (g)	5.160	4.745	4.970	5.210
Massa Matrik (g)	5.440	5.525	5.390	5.860
Massa Komposit (g)	10.58	10.58	10.58	10.58

Lampiran 15 Tabel Perhitungan Fraksi Berat Serat dan Matrik Terhadap Komposit

Fraksi Berat	Plain	Twill	Satin	Basket
Fraksi Berat Serat Terhadap Komposit (%)	48.77	44.85	46.98	49.24
Fraksi Berat Matrik Terhadap Komposit (%)	51.42	52.22	50.95	55.39

Lampiran 16 Diagram Fraksi Berat Serat dan Resin Terhadap Komposit