LAMPIRAN

Dokumentasi Penelitian

Foto 1 Proses pengambilan Daun Sisal

Foto 2 Proses penjemuran Serat Sisal

Foto 3 Pembuatan Cetakan

Foto 4 Menimbang Serat

Foto 5 Penyiapan Material untuk dicetak

Foto 6 Proses Pencetakan Komposit

Foto 7 Membuat Spesimen Komposit untuk Uji Tarik

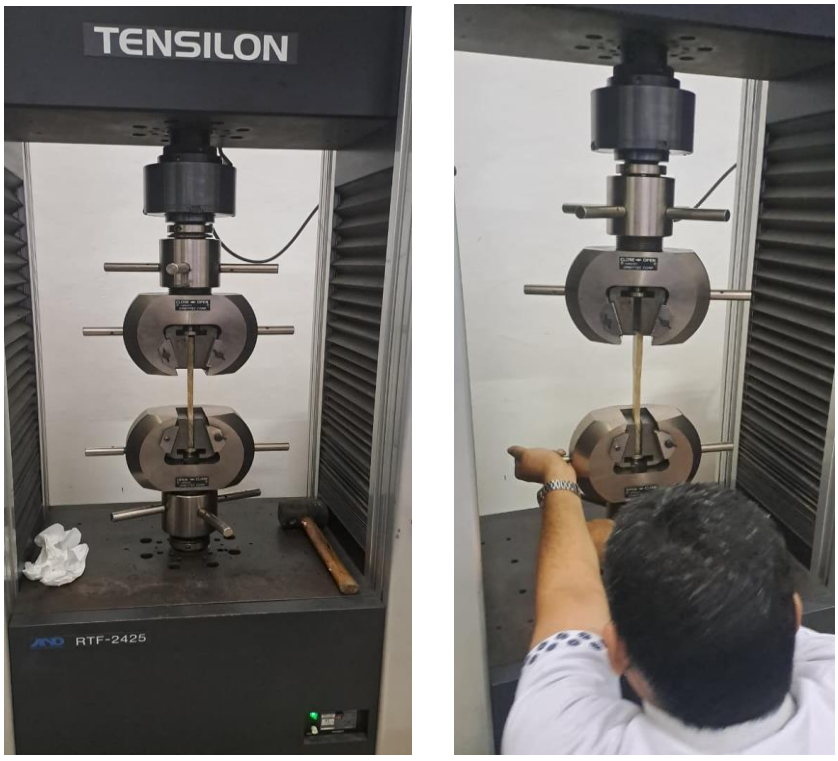


Foto 8 Proses Uji Tarik Spesimen

Foto 9 Spesimen sudut 0^0 dan sudut 30^0 setelah uji tarik

Foto 10 Spesimen sudut 60^0 dan sudut 90^0 setelah uji tarik

Foto 11 Pengamatan Struktur Makro setelah Uji Tarik

Jadwal Penelitian

No.	Kegiatan	Bulan Ke-					
		I	II	III	IV	V	VI
1	Pembuatan Proposal						
2	Seminar Proposal						
3	Persiapan Penelitian						
4	Pengujian Spesimen (Uji Tarik dan Foto Struktur Makro)						
5	Analisa dan Seminar						
6	Laporan Akhir						

KEMENTERIAN KETENAGAKERJAAN RI
DIREKTORAT JENDERAL
PEMBINAAN PELATIHAN VOKASI DAN PRODUKTIVITAS
BBPVP Makassar
JL. Taman Makam Pahlawan No. 4 Makassar, Telepon (0411) 442322 Faksimile 441558
Laman : http://www.naker.go.id

SURAT KETERANGAN

Nomor : B. 91/ WORKSHOP LAS/ BBPVP - MKS/ VIII/ 2025

Yang bertandatangan dibawah ini :

Nama : Haeruddin Hafid, ST.,MT

NIP : 19770201 200912 1 001

Dengan Ini menerangkan bahwa :

No	Nama Mahasiswa	Judul Tugas Akhir
1	Ones Siporus Toding / 220212105	Pengaruh Presentase Serat Sisal Terhadap Kekuatan Tarik dan Struktur Makro Komposit Serat Sisal Bermatriks Polyster
2	Iganasius Rolan / 1224212005	Dampak Panjang Serat Sisal Terhadap Kekuatan Bending dan Ketangguhan Komposit Serat Sisal Bermatriks Polyester
3	Yusdar Menta / 124212006	Pengaruh Panjang Serat Terhadap Kekuatan Tarik dan Struktur Makro Komposit Serat Sisal Bermatriks Polyester
4	Junaedy Tandepadang / 1224212019	Study Pengaruh Orientasi Sudut Serat Sisal Terhadap Kekuatan Tarik dan Struktur Makro Komposit Serat Sisal Bermatriks Polyester

5	Leonard Alvin / 1224212016	Pengaruh Orientasi Sudut Terhadap Kekuatan Bending dan Ketangguhan Komposit Serat Sisal Bermatriks Polyester
6	Desar Susanto / 1224212007	Pengaruh Lama Perendaman Serat Sisal Terhadap Kekuatan Tarik dan Struktur Makro Komposit Serat Sisal Bermatriks Polyester
7	Arclaus Denni Frissi / 220212107	Efektifitas Presentase Serat Sisal Terhadap Kekuatan Bending dan Ketangguhan Komposit Serat Sisal Bermatriks Polyester

Bahwa benar telah melaksanakan Pengujian di Workshop Las Balai Besar Pelatihan Vokasi dan Produktivitas Makassar pada tanggal 12-13 Agustus 2025

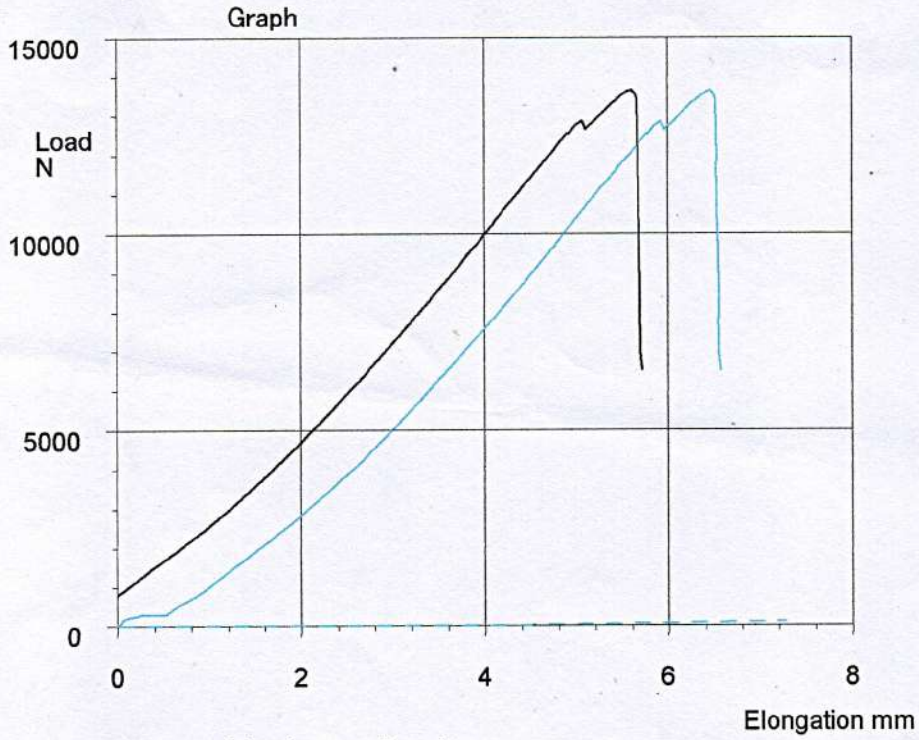
Demikian surat keterangan ini kami berikan, untuk dipergunakan sebagai mana mestinya.

Makassar, 13 Agustus 2025

WORKSHOP BLK MAKASSAR TEKNIK

Haeruddin Hafid, ST.,MT.

NIP. 19770201 200912 1 001

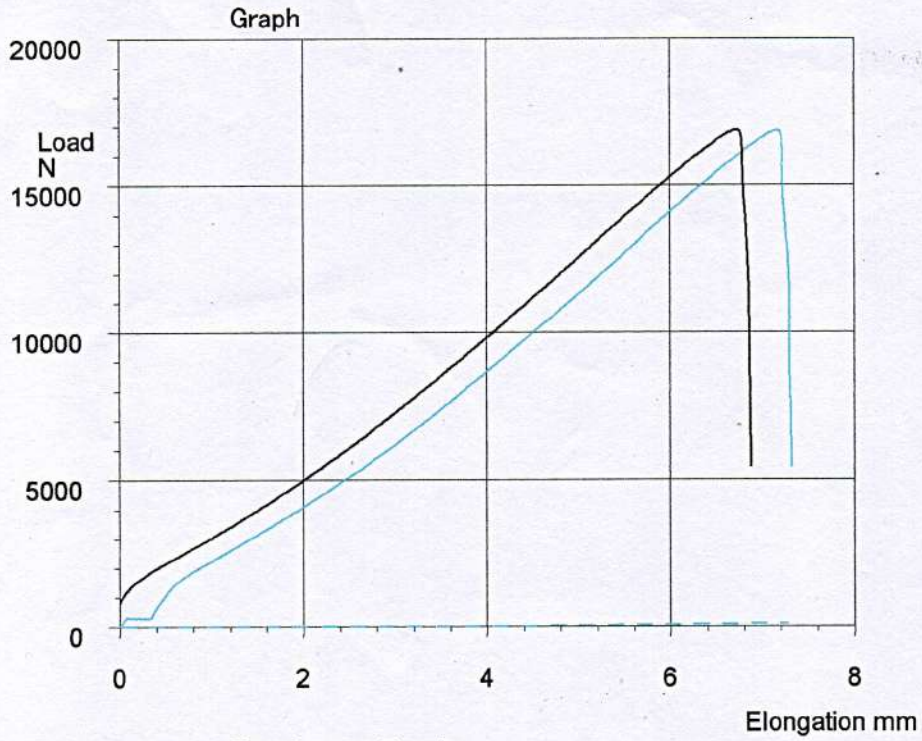


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	0 Derajat, A1

TestID=3868	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	13645.	1.4862	12849.	1687.1	1687.1

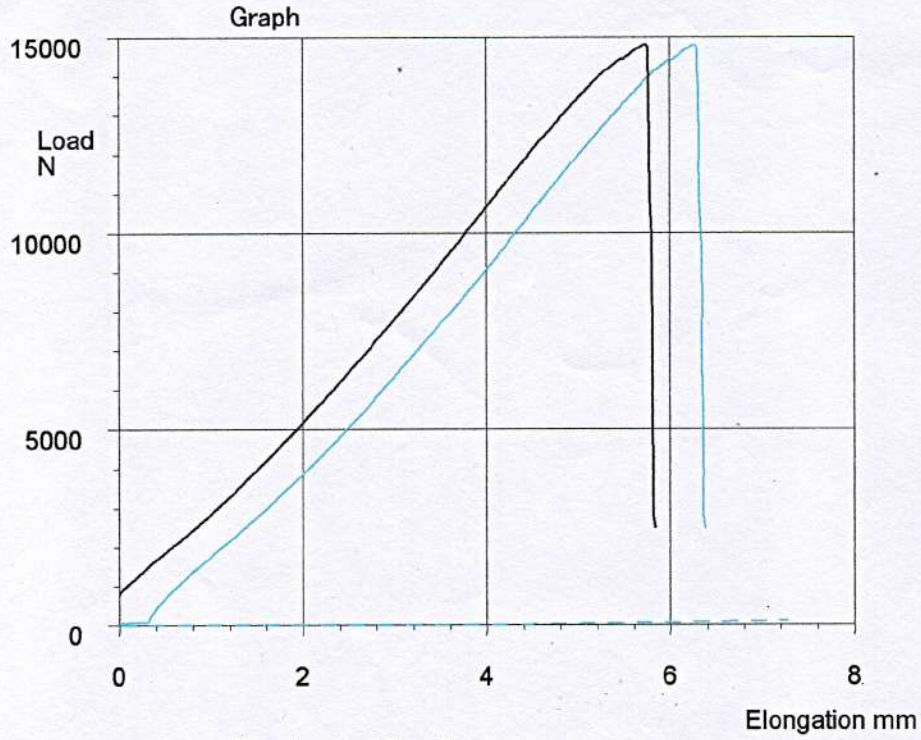


Tension testResult

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	0 Derajat, A2

TestID=3869	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	16853.	1.4871	16853.	2726.6	2726.6

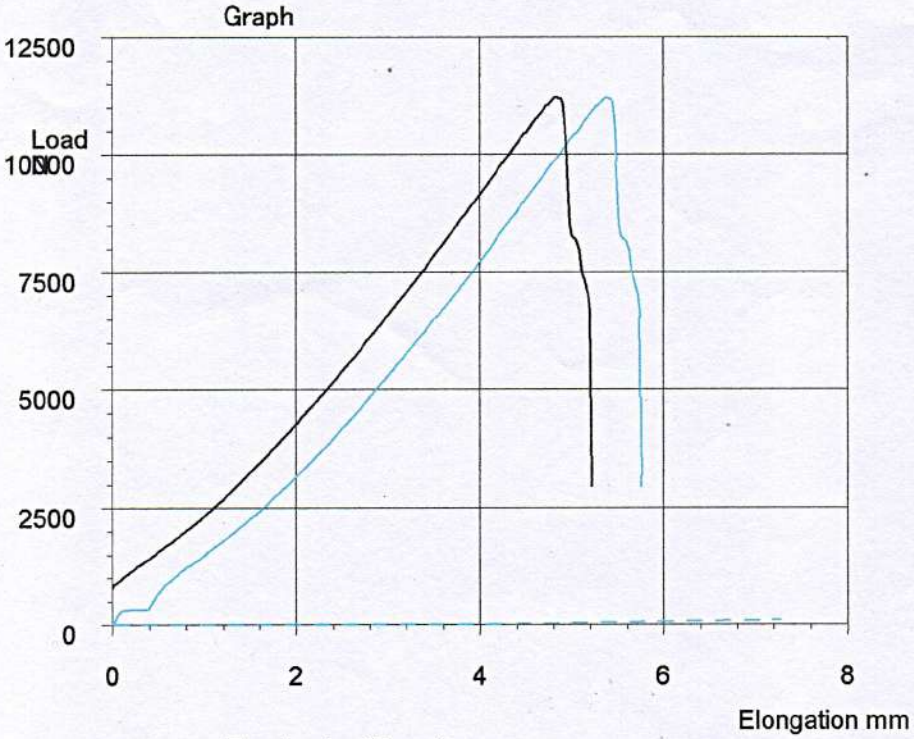


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	0 Derajat, A3

TestID=3870	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	14802.	0.3154	14802.	159.92	159.92

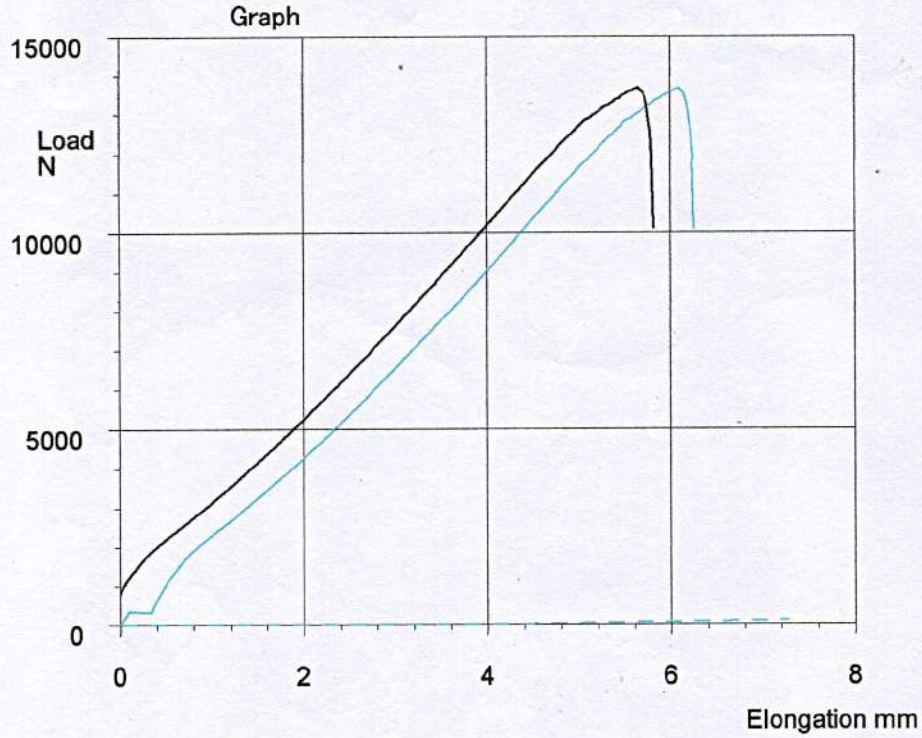


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	0 Derajat, A4

TestID=3871	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	11201.	1.5767	11201.	2244.4	2244.4

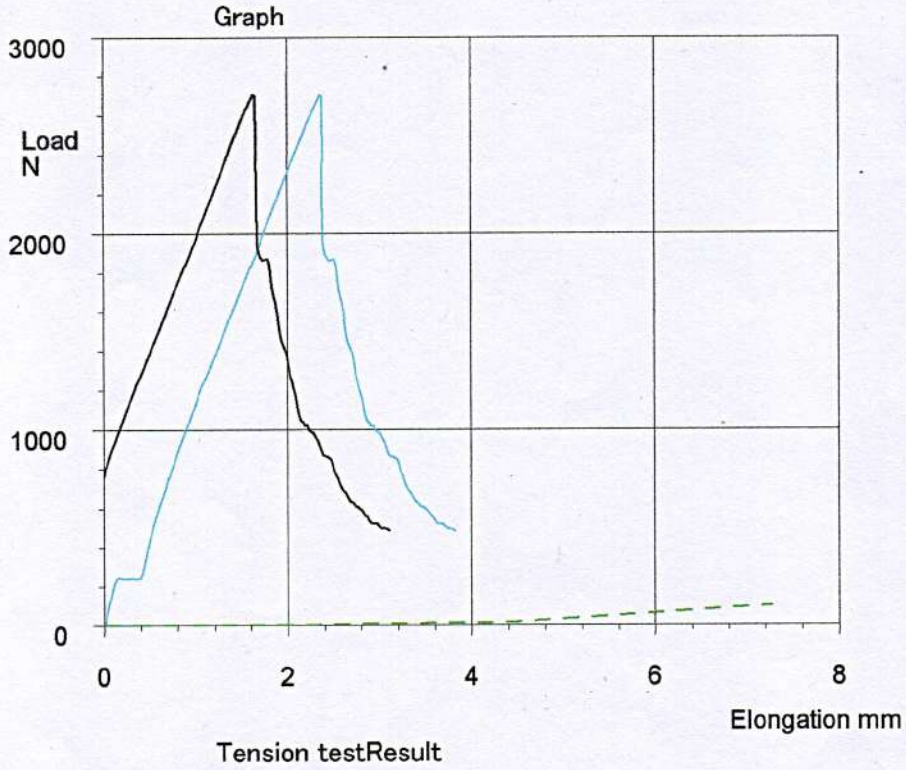


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	0 Derajat, A5

TestID=3872	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	13669.	1.7141	13669.	747.49	747.49

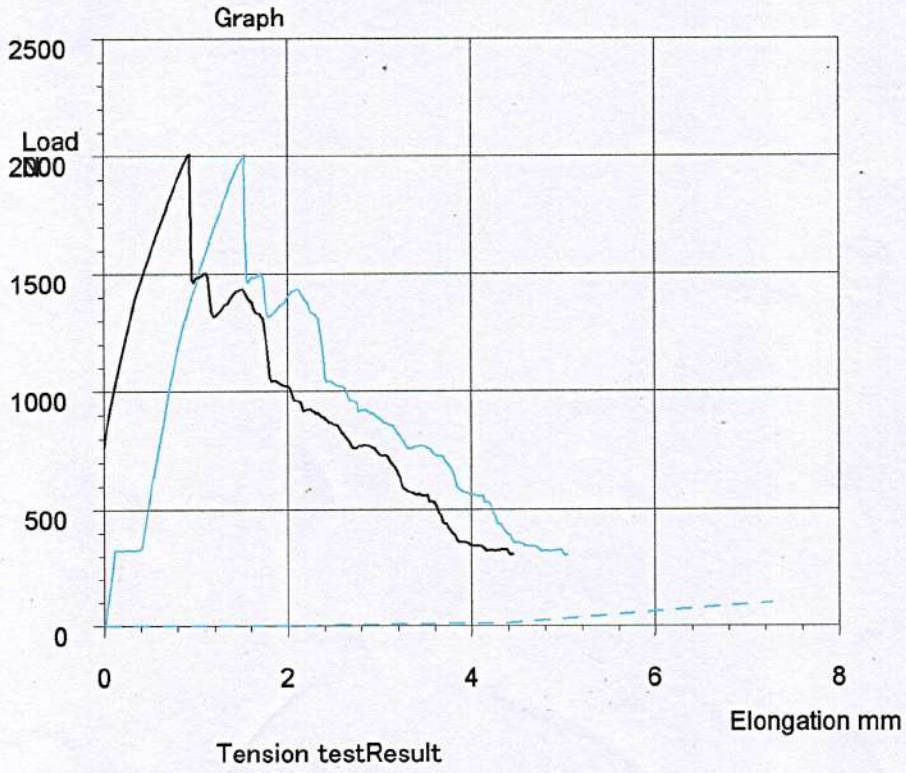


Tension testResult

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	30 Derajat, A1

TestID=3873	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	2703.0	1.2216	2703.0	1316.2	1316.2
2	20.000	10.000	200.00	449.84	2.2492	*******	433.13	433.13

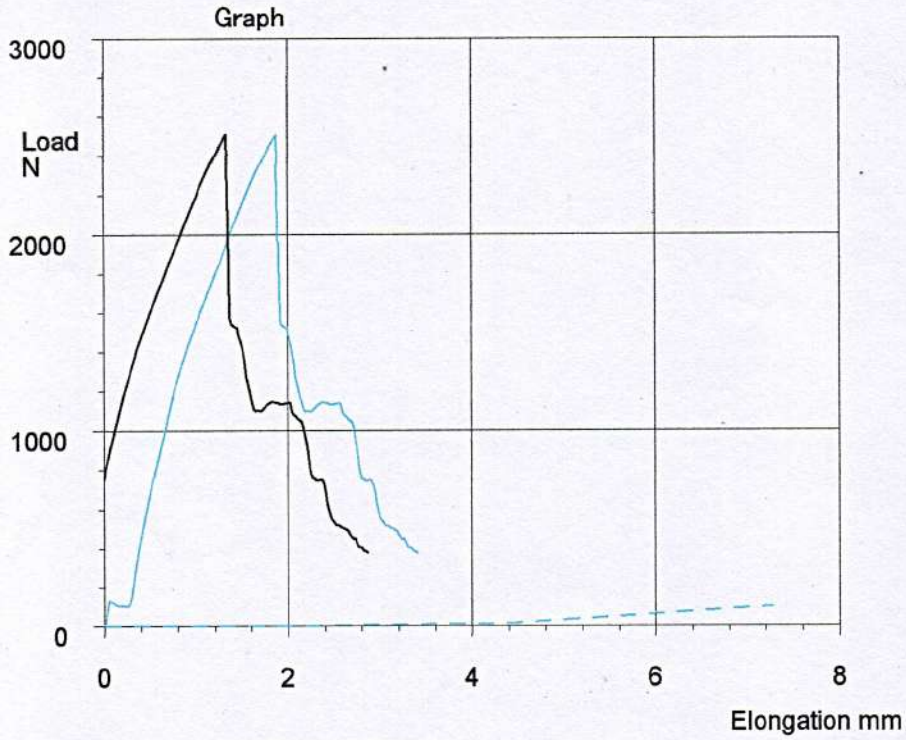


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	30 Derajat, A2

TestID=3874	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	2006.9	1.6204	2006.9	1443.1	1443.1

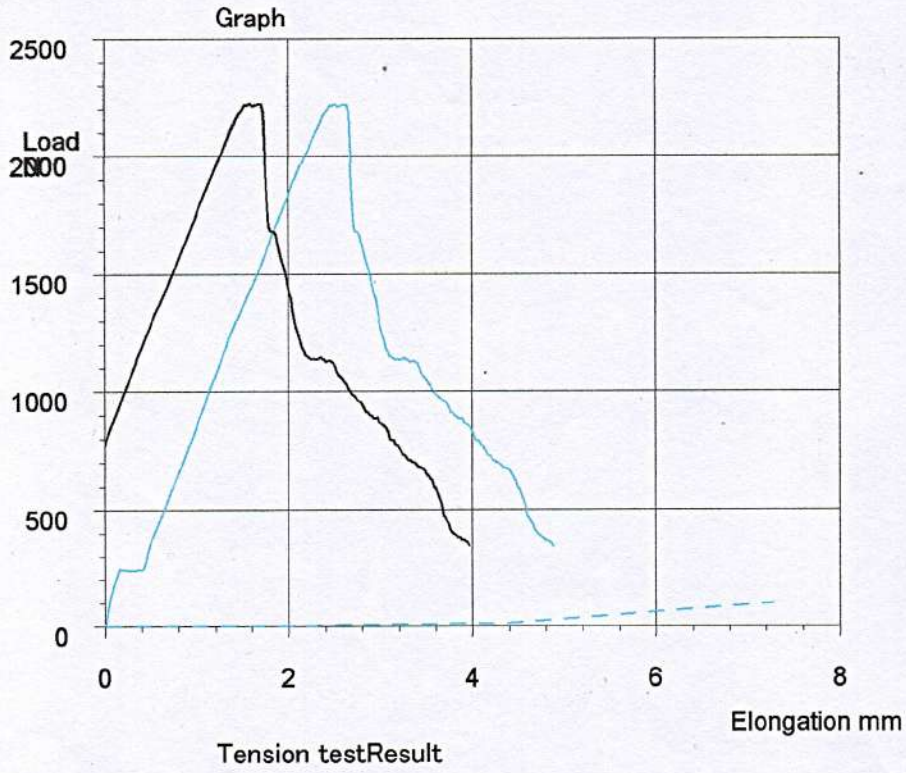


Tension testResult

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	30 Derajat, A3

TestID=3875	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	2505.0	0.6344	2505.0	1510.9	1510.9

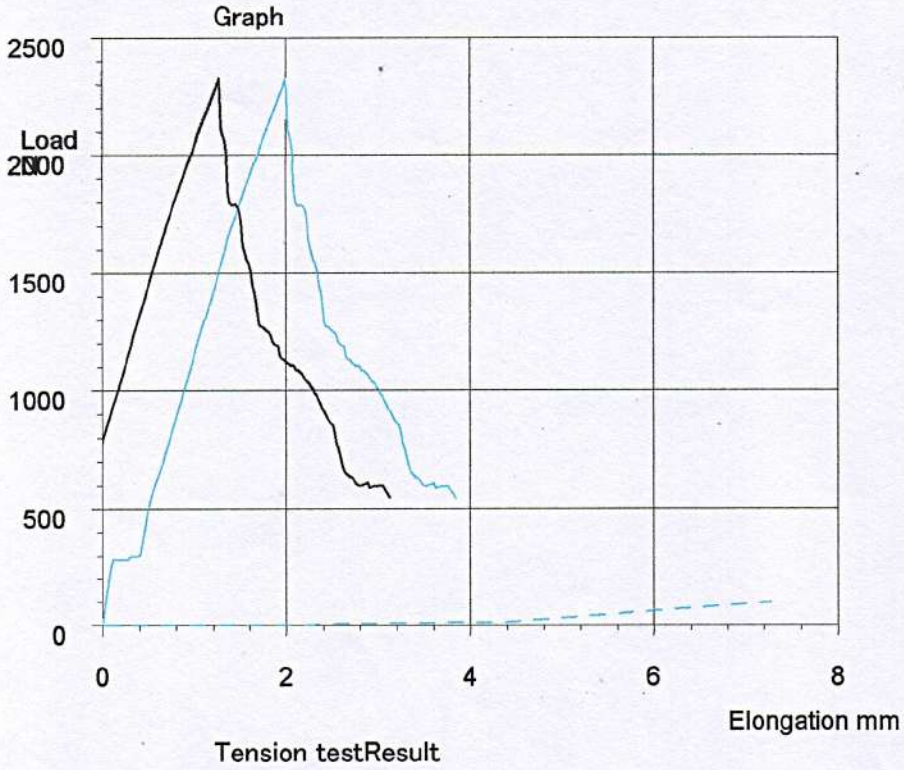


Tension testResult

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	30 Derajat, A4

TestID=3876	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	2220.6	1.2139	2220.6	1308.6	1308.6

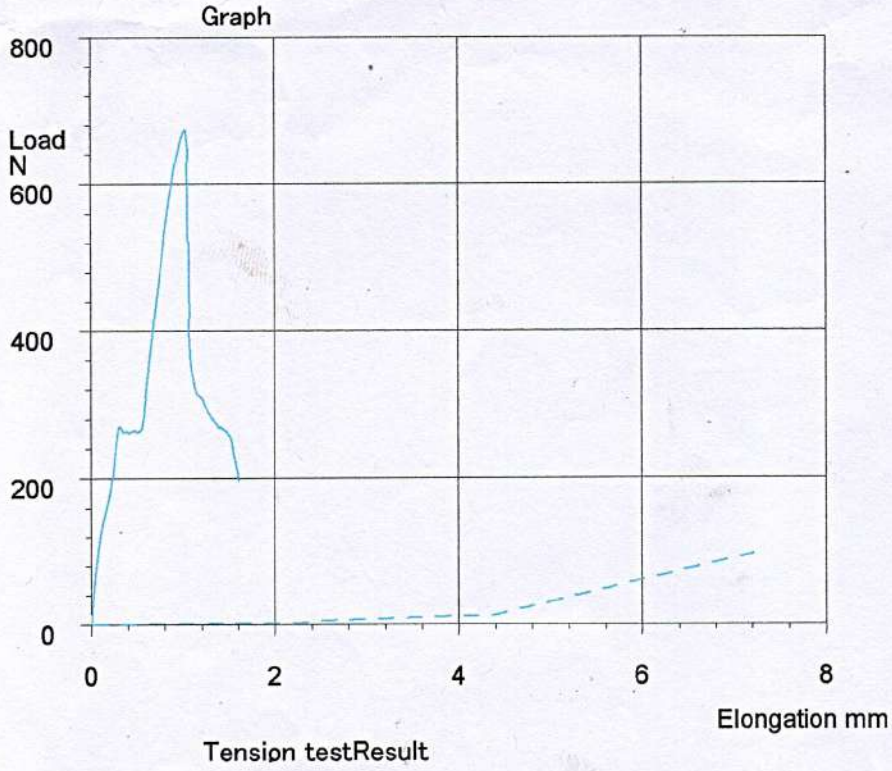


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	30 Derajat, A5

TestID=3877	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	2324.5	1.4019	2324.5	1544.1	1544.1

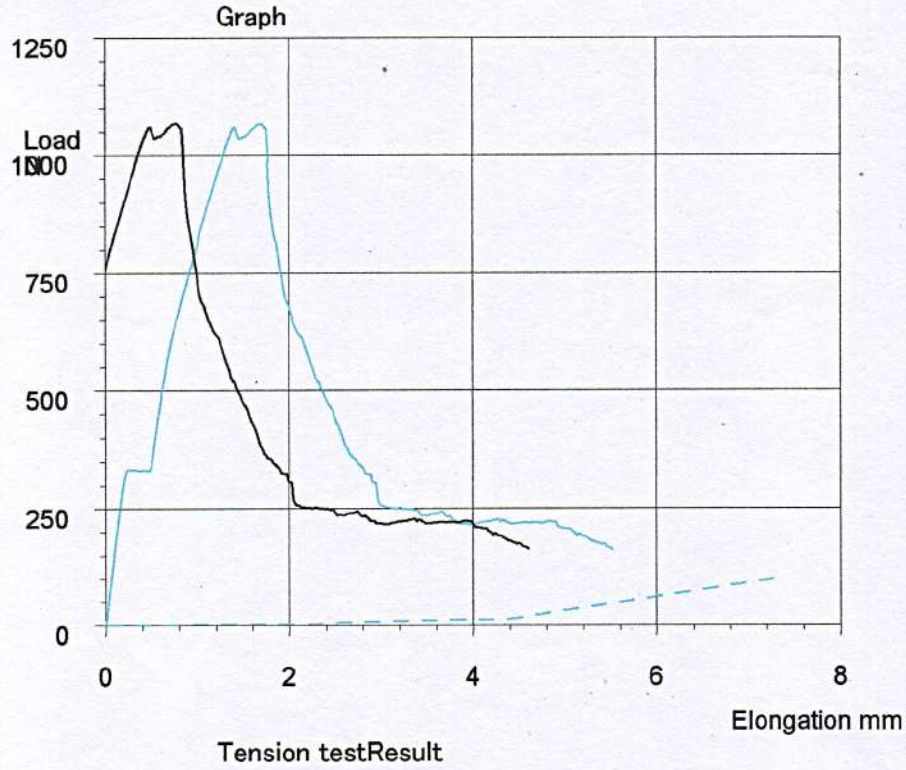


sample No.	Color
1	
Average SS	

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	60 Derajat, A1

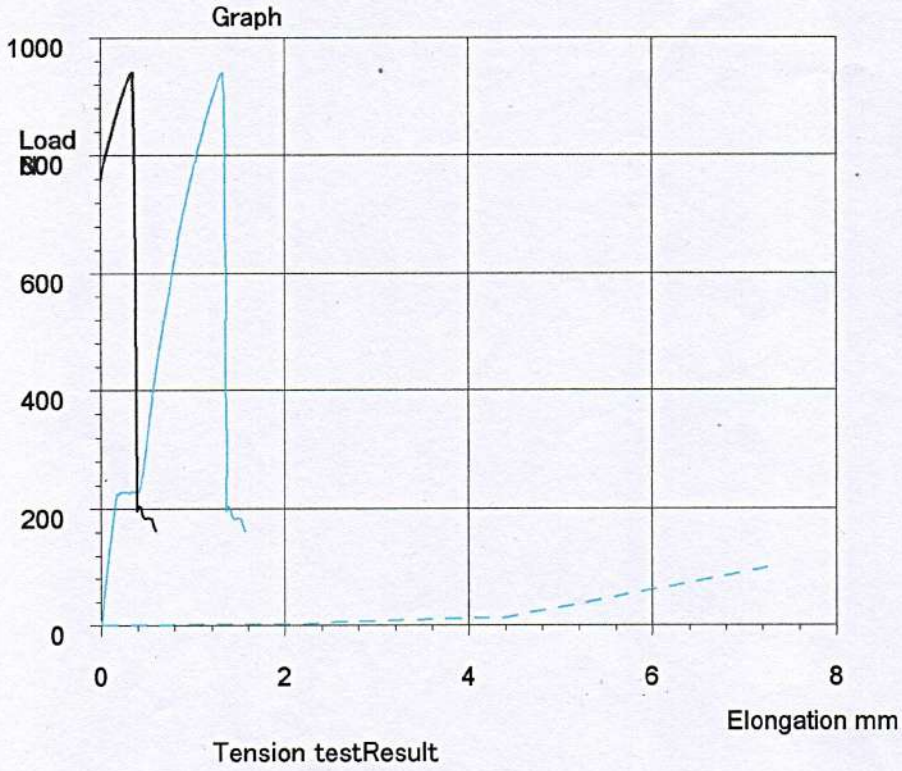
TestID=3878	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	673.97	1.3493	*******	554.13	554.13



Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	60 Derajat, A2

TestID=3879	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	1066.1	1.6524	1058.2	871.25	871.25

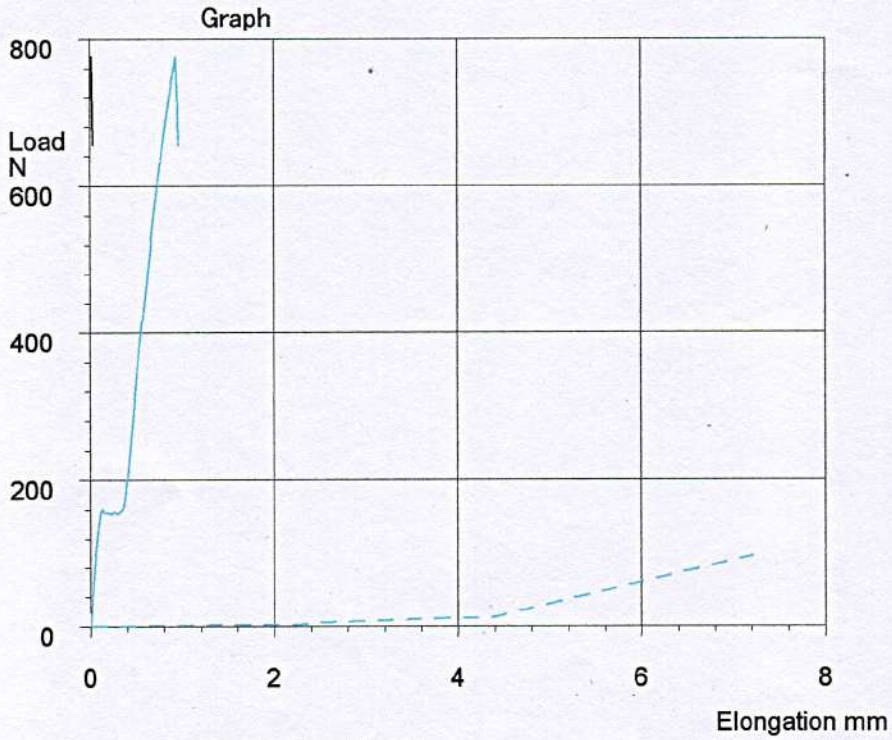


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	60 Derajat, A3

TestID=3880	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	940.38	1.1355	940.38	786.20	786.20

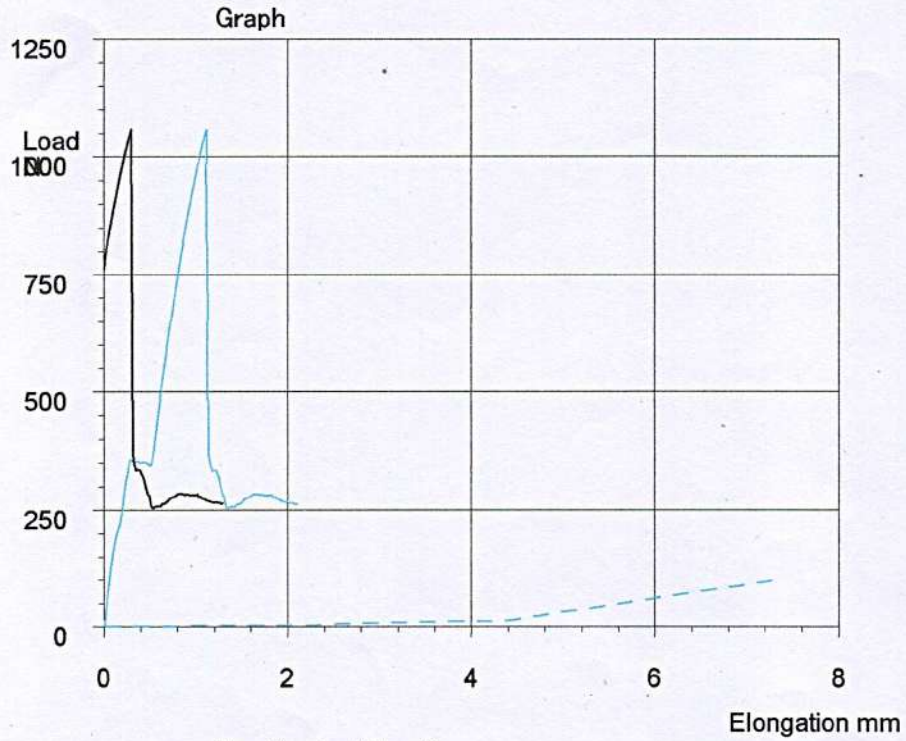


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	60 Derajat, A4

TestID=3881	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	775.42	0.7836	*******	798.89	798.89

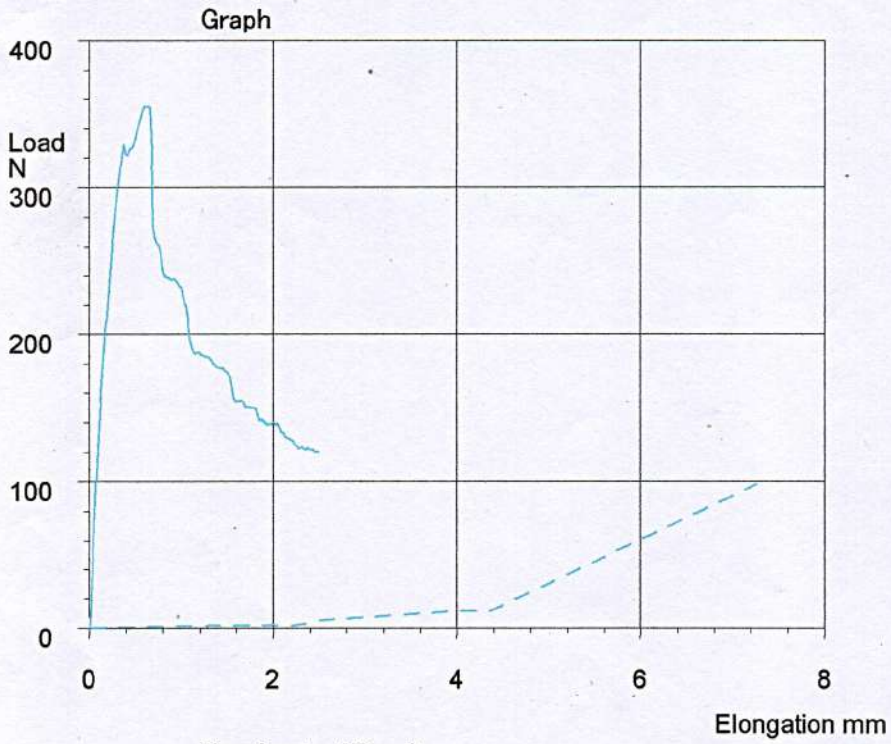


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	60 Derajat, A5

TestID=3882	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	1056.0	1.7650	1056.0	880.42	880.42

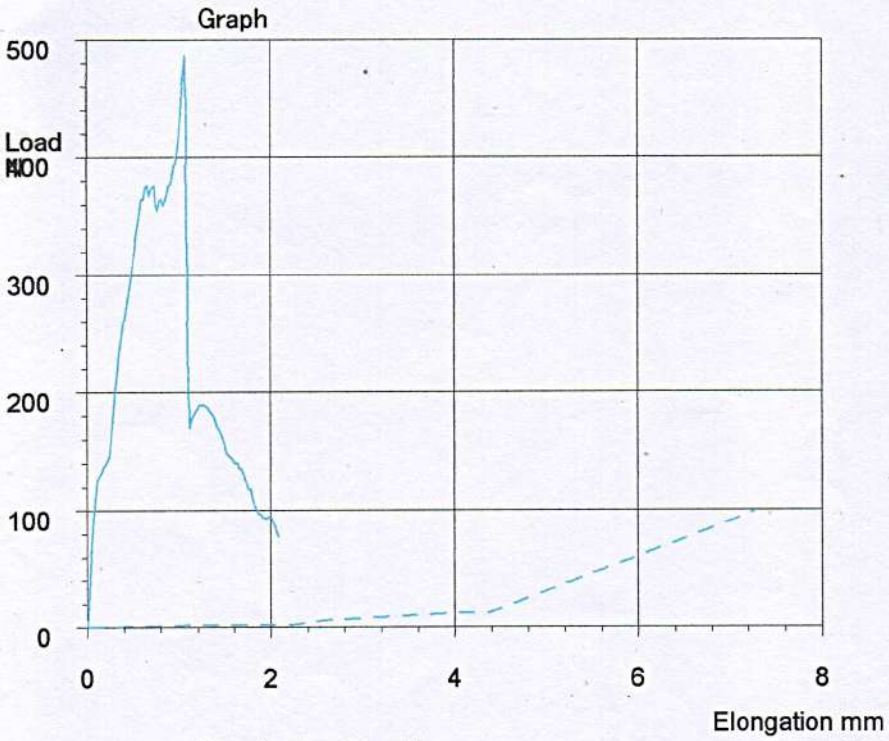


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	90 Derajat, A1

TestID=3883	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	355.01	1.6114	*******	684.97	684.97

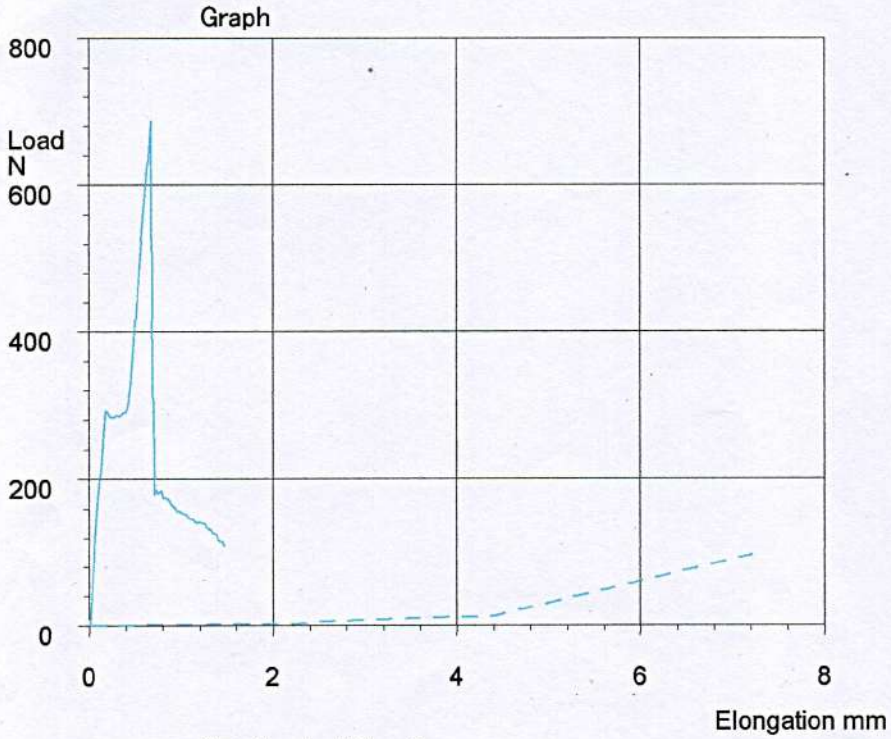


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	90 Derajat, A2

TestID=3884	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	486.17	1.8787	*******	623.78	623.78

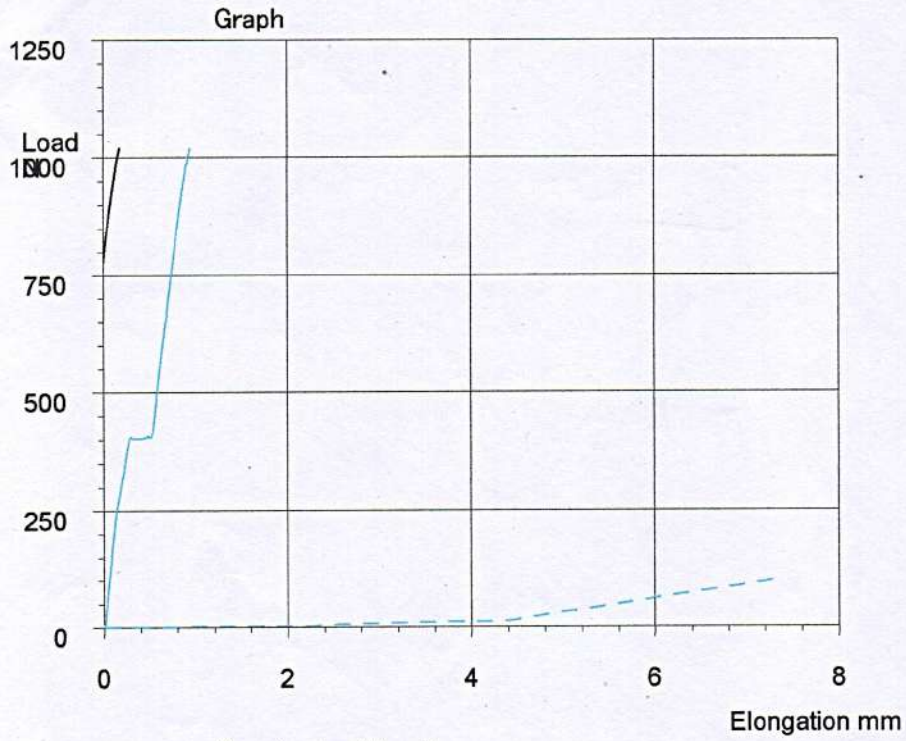


Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	90 Derajat, A3

TestID=3885	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	685.71	1.4526	*******	989.79	989.79



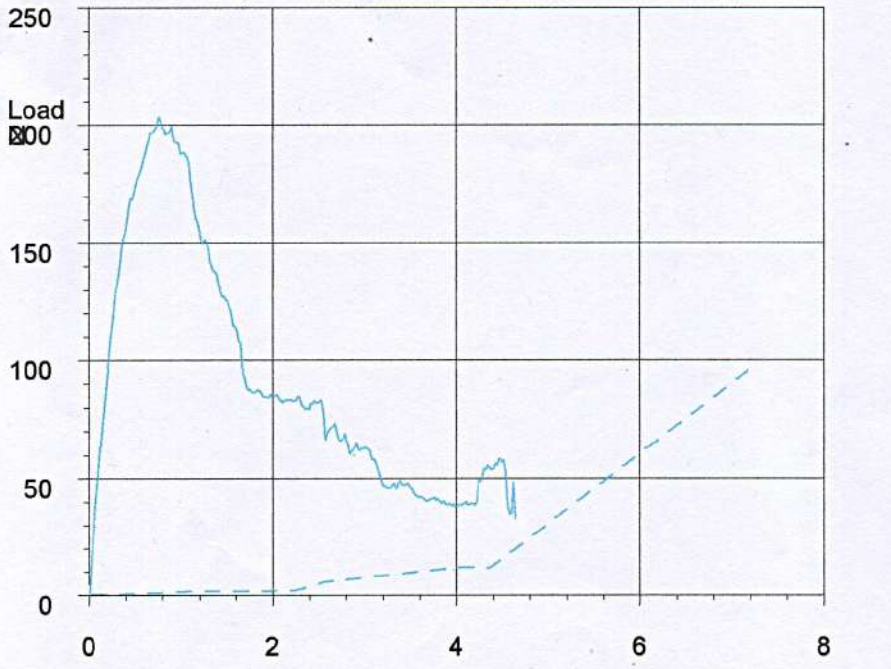
Tension testResult

Machine name				Test type	Tension		
Strain input 1	Not used			Test speed	5.0 mm/min		
Chart speed OFF				Machine rigidity	0 mm/kN		
Point data(Load)	0	0	0	Point data(Elong)	0	0	0
kN	0	0	0	mm	0	0	0
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm	
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO	
Elong adjust	No			Break point measurem	0.0005 kN		
Save SS curve	Yes						

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	90 Derajat, A4

TestID=3886	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	1017.0	2.0212	*******	985.54	985.54

Graph



sample No.	Color
1	
Average SS	

Tension testResult

Machine name				Test type	Tension			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kN			
Point data(Load)	0	0	0	Point data(Elong)	0	0	0	
kN	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	0.001	0.1	Initial sample length	Distance	98 mm		
Load	Pitch	0.005 kN		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.0005 kN			
Save SS curve	Yes							

Test date	2025/08/12	Temperature	25 C
Humidity	60 %RH	Sample name	Plate Serat Sisal
Lot No.		Preparation	
Operator	Haeruddin Hafid.S.T.,M.T.	User	Junaedy Tandepadang
Comment 1	Serat 20 %, Resin 80 %	Comment 2	90 Derajat, A5

TestID=3887	Width	Thickness	Sectional ar	Maximum poin	Break point	Upper yield	Elastic modu	Young
				Load	Stress	Load		
Test No	mm	mm	mm2	N	N/mm2	N	N/mm2	N/mm2
1	20.000	10.000	200.00	203.21	1.0098	*******	266.05	266.05